Effingham County

Transportation Master Plan Update

EFFINGHAM COUNTY
EST. 1777
GEORGIA

POND

July 18, 2025

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CHAPTER 1: INTRODUCTION

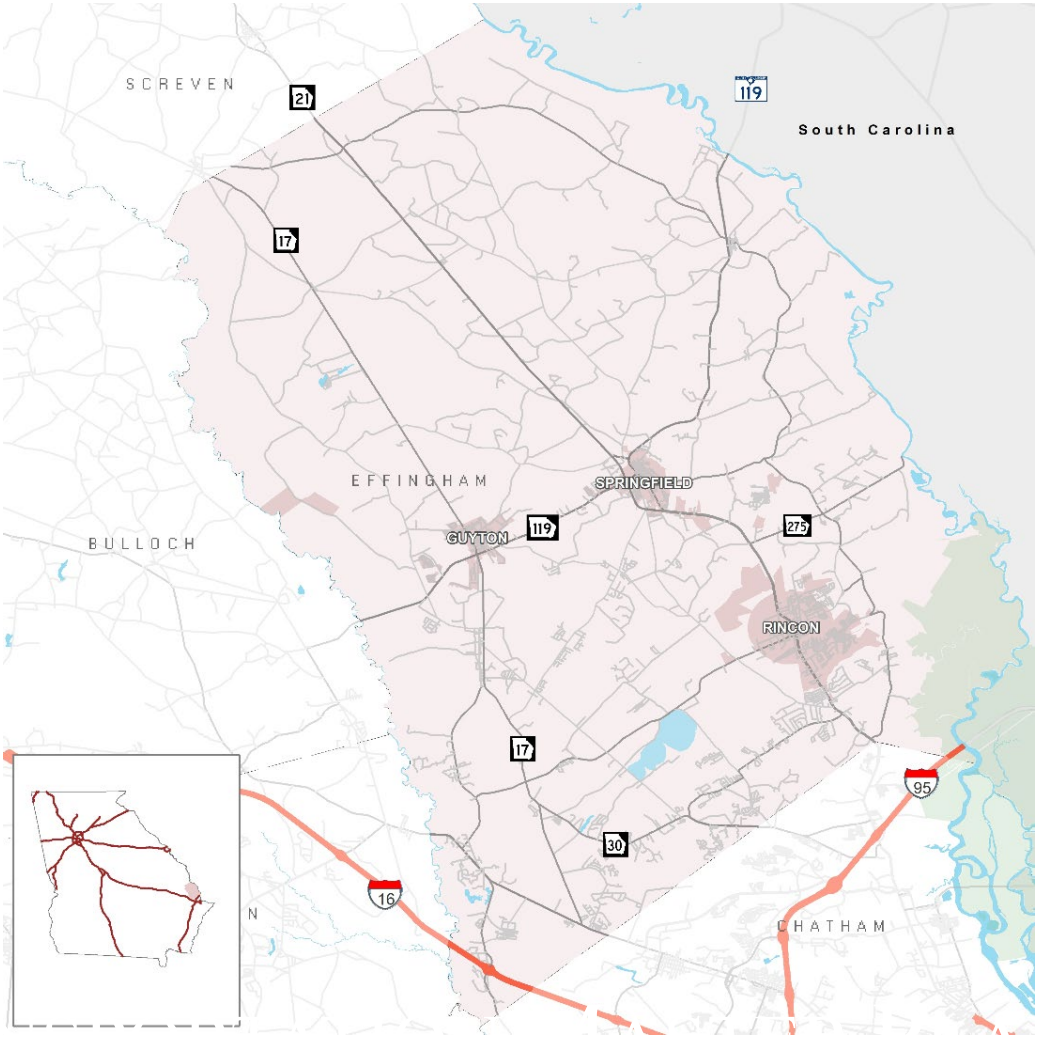
EFFINGHAM COUNTY LOCATION/CONTEXT

Effingham County sits along the Savannah River in southern Georgia bordered by South Carolina to the east, bordered by Chatham, Bryan, Bulloch, and Screven Counties, and the Port of Savannah to the south. Effingham County is included in the Savannah metropolitan area. The county has a total of 483 square miles of which 5.2 square miles is water. The county has two major highways, I-16 and I-95, and six state routes.

From 2010 to 2020, Effingham County is estimated to have grown by over twenty-five percent, the sixth-fastest growing county in the state (on a percentage basis). This growth has already begun to put a substantial strain on Effingham County's transportation network, increasing congestion and safety concerns along its largely rural roadways.

This planning-level Transportation Master Plan (TMP) update is intended to incorporate the results of other studies and planned development, evaluate critical transportation links and bottlenecks, incorporate needs for roadway paving, and provide guidance on transportation requirements to be incorporated into development regulations. All tasks will consider maximizing safety, connectivity, efficiency, and equitable transportation access.

Figure 1-1: Study Area



CHAPTER 2: NEEDS ASSESSMENT UPDATE

In order to best understand the existing and anticipated future needs of Effingham County's transportation system, a wide array of data was collected and analyzed. Some of this information, such as population growth and employment mix, provide important context to the types of transportation improvements needed and where they are implemented, while other more transportation-specific data points such as crash history and existing vehicular volumes provide the foundation of the analysis.

The Transportation Master Plan Update Needs Assessment section will be updated to reflect changes since the last plan and to address freight and transit needs. The existing traffic data and analysis will remain as part of the revised document and will be supplemented with new data and information.

Pond will obtain updated GIS information from Effingham County for use in the TMP, as well as the current census data. Population and employment data will be obtained from census data sources and used to update related maps in the TMP.

RELEVANT STUDIES

The study team will continue to coordinate with the CORE MPO as they prepare their Metropolitan Transportation Plan (MTP) update to understand the changes that affect Effingham County and discuss the components of the county plan. The TMP project team will also coordinate with the Blue Jay Corridor Study throughout the planning process. The following relevant studies were reviewed and summarized in Appendix A:

- Old Augusta Road Corridor Study
- Southeastern Roadway Network (SERN) Study
- Effingham Parkway and Forrest Haven Drive / Squirrel Run
- Goshen Road Traffic Engineering Study
- GDOT Coastal Empire Study
- Effingham Parkway and Blue Jay Road Traffic Report
- Commercial Corridor Study
- Effingham County Comprehensive Plan

DEMOGRAPHICS

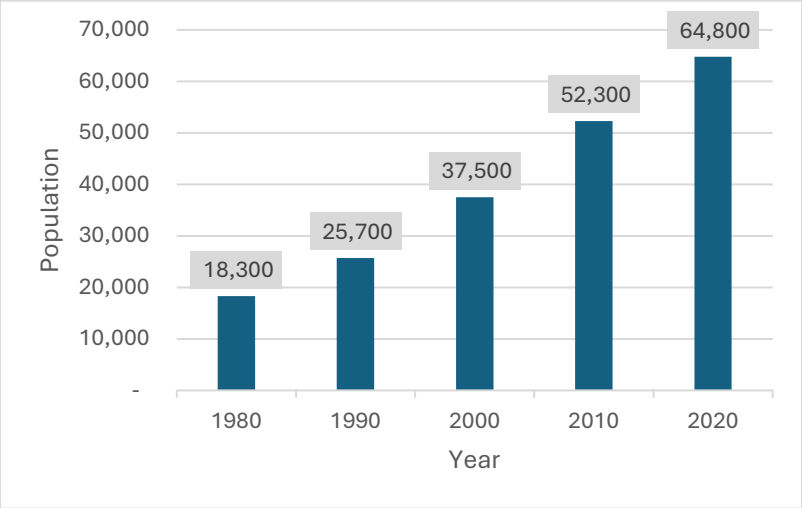
Effingham County's transportation infrastructure is closely intertwined with its demographic makeup, influencing how people move and conduct business throughout the region. Over the past four decades, the county has experienced a significant increase in population coupled with employment concentrations forming along key corridors. This section provides an in-depth look at the county's demographic and employment profile, including population density, employment distribution, commuting behaviors, and the implications of the Justice40 initiative. Together, these demographic insights provide valuable context for understanding Effingham County's transportation landscape and guiding future planning efforts to address evolving needs and challenges.

Population Density

Effingham County's population has significantly increased over the past 40 years, as depicted in the chart in Figure 2-1, which shows the historical population of Effingham County. From 52,250 people residing in Effingham County in 2010, the population grew 64,800 by 2020. This trend is expected to continue as more development occurs within the county, putting strain on the county's transportation system.

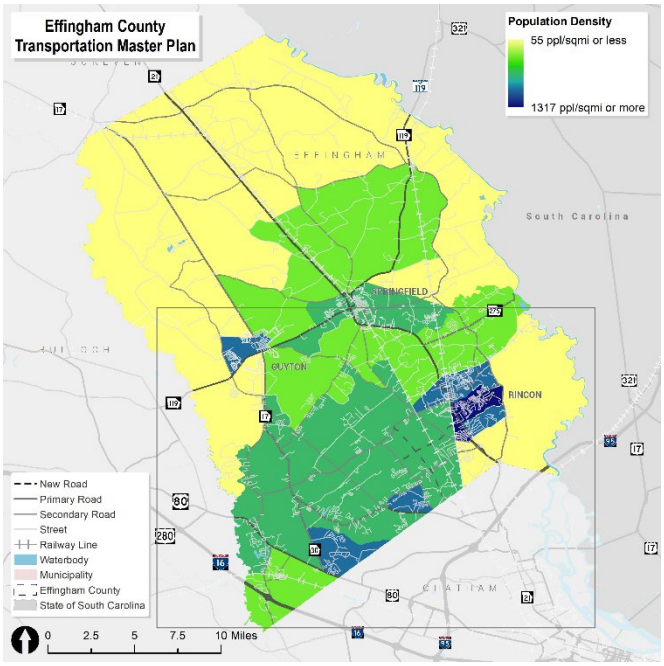
Although the recent growth rate is slower compared to previous decades, the county's population is estimated to have increased by approximately 24% between 2010 and 2020. For comparison, the population in the US grew by 7.2%, and in Georgia, it grew by 10.5% during the same period.

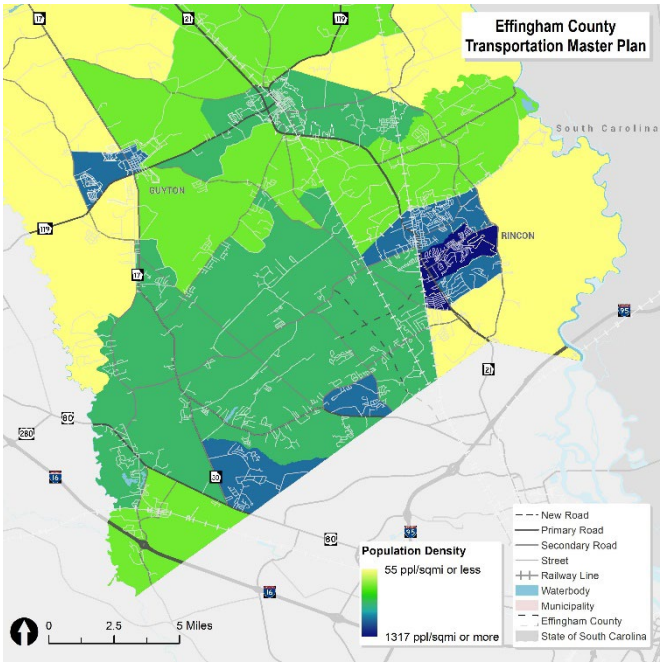
Figure 2-1: Historic Population of Effingham County (1980 – 2020, U.S. Decennial Census)



As seen in Figure 2-2, the county's population is mainly situated south of SR 119. The highest density is in Rincon along SR 21 / South Columbia Avenue and Old Augusta Road. Higher density is found in Guyton around SR 119 to Old Louisville Road and SR 14 in downtown Guyton. SR 30 and the southwest county line were also identified with higher population density.

Figure 2-2: Population Density (number of people per square mile)





Employment Concentration

Effingham County's employment concentrations closely align with its population density, primarily concentrated along the SR 21 and SR 119 corridors. These corridors provide connections to the port of Savannah, the bordering state of South Carolina, and I-95. Other notable roadways with high concentrations of employment include Old Augusta Road, SR 275, and US 80. The North American Industry Classification System (NAICS) reveals that the top industry of Effingham's workforce is manufacturing, accounting for 15%, due to its proximity to the port of Savannah, which is a strategic location for freight-related developments. While Manufacturing was identified as the top industry of Effingham County, it should be noted that the combination of Health Care and Social Assistance, Retail, and Educational Services make up just under 40% of the county's employment. In 2023, the county's workforce totaled approximately 33,987 people compared to the 29,762 workers in 2021. Table 2-1 and Table 2-2-2 show the top ten largest employers and industries in Effingham County according to the Georgia Department of Labor.

Table 2-1: Job Count by NAICS Industry (2021, US Census-LEHD)

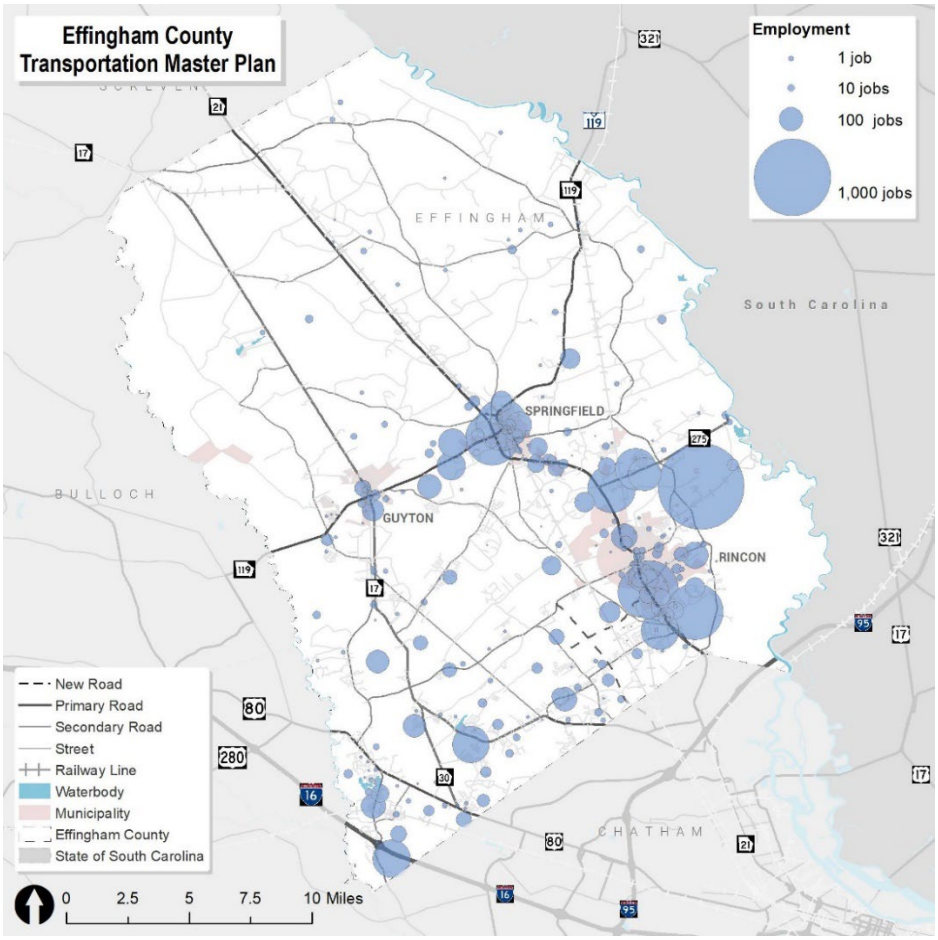
Industry	Job Count	Percentage
Agriculture, Forestry, Fishing and Hunting	150	1.4%
Mining, Quarrying, and Oil and Gas Extraction	9	0.1%
Utilities	95	0.9%
Construction	751	6.9%
Manufacturing	**1665**	**15.3%**
Wholesale Trade	230	2.1%
Retail Trade	**1345**	**12.3%**
Transportation and Warehousing	600	5.5%
Information	26	0.2%
Finance and Insurance	144	1.3%
Real Estate and Rental and Leasing	64	0.6%
Professional, Scientific, and Technical Services	637	5.8%
Management of Companies and Enterprises	16	0.1%
Administration & Support, Waste Management and Remediation	610	5.6%
Educational Services	**1565**	**14.3%**
Health Care and Social Assistance	**1089**	**10.0%**
Arts, Entertainment, and Recreation	29	0.3%
Accommodation and Food Services	889	8.1%
Other Services (excluding Public Administration)	388	3.6%
Public Administration	616	5.6%

Table 2-2: Top 10 Largest Employers in Effingham County (2023, GA Dept. of Labor)

Largest Employers	Product	Employees
Effingham County Board of Education	Public Schools	1735
Georgia-Pacific	Paper Products	1000
Effingham County Hospital Authority	Hospital	400
Georgia Power Company	Electric & Natural Gas Utility	390
Walmart	Retail	385
Kroger	Retail	350
Edwards Interiors, Inc.	Aerospace Parts/Furnishings	300
Georgia Transformer Corporation	Transformers	258
Lineage Logistics Services, LLC	Cold Storage & Transportation of Perishable Products	165
Interfor-Meldrim	Wood Products	155

As shown in Figure 2-3: Employment Concentration (2021, US Census), Rincon has the largest concentration of jobs with more than 1,000 jobs between Old Augusta Road and SR 275. SR 21 has various sized employment concentrations from Springfield to the south county line. There is a significant amount of employment concentrated on SR 21 from Blandford Road to US 30. The majority of all employment is at or below SR 119 in the southern portion of the county.

Figure 2-3: Employment Concentration (2021, US Census)



COMMUTING DYNAMICS

A significant number of Effingham's residents leave the county for work. In 2021, Effingham County was estimated to have 10,900 jobs and 28,600 workers. Additionally, according to Longitudinal Employer-Household Dynamics (LEHD) data, 5,700 workers commuted into Effingham for work while 23,400 Effingham residents commuted outside of the county to work. Meanwhile, 5,200 people lived and worked in Effingham County.

Effingham County's residents primarily work in employment concentrations in Chatham County, especially Savannah, Pooler, Port Wentworth, and Garden City. Effingham County residents also commute to Statesboro in Bulloch County and Hinesville in Liberty County. These commuting patterns indicate a heavy reliance on neighboring areas for employment, which may contribute to increased commuter traffic on roads leading out of the county. These roads include I-16, I-95, US 80, SR 21, SR 119, SR 30/Noel C Conaway Road, SR 275, and Old Augusta Road.

Notably, the northern portion of the county lacks a heavy concentration of jobs and residents, as well as roadways that provide east-west connections. As the county continues to develop and its population increases, establishing east-west connections in the northern portion will be crucial for regional accessibility and for avoiding increased congestion on existing roadways.

Those employed in Effingham County are typically residents of nearby areas, with a significant portion commuting from bordering counties, particularly Chatham County. Over 65% of workers in Effingham County commute less than 24 miles to their workplaces, with approximately half of them traveling fewer than 10 miles.

Figure 2-4: Work Locations of Effingham County Residents

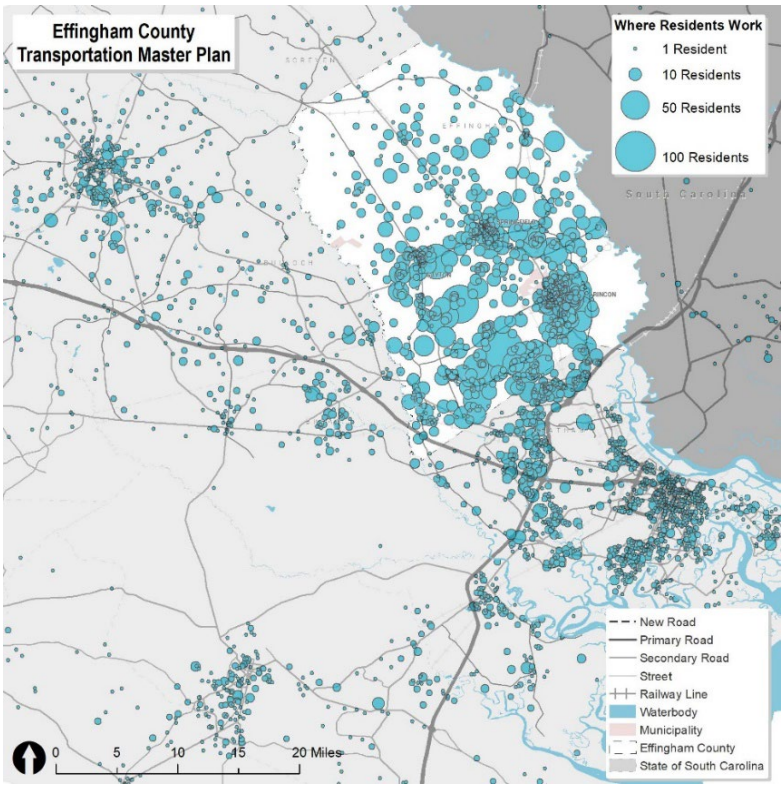
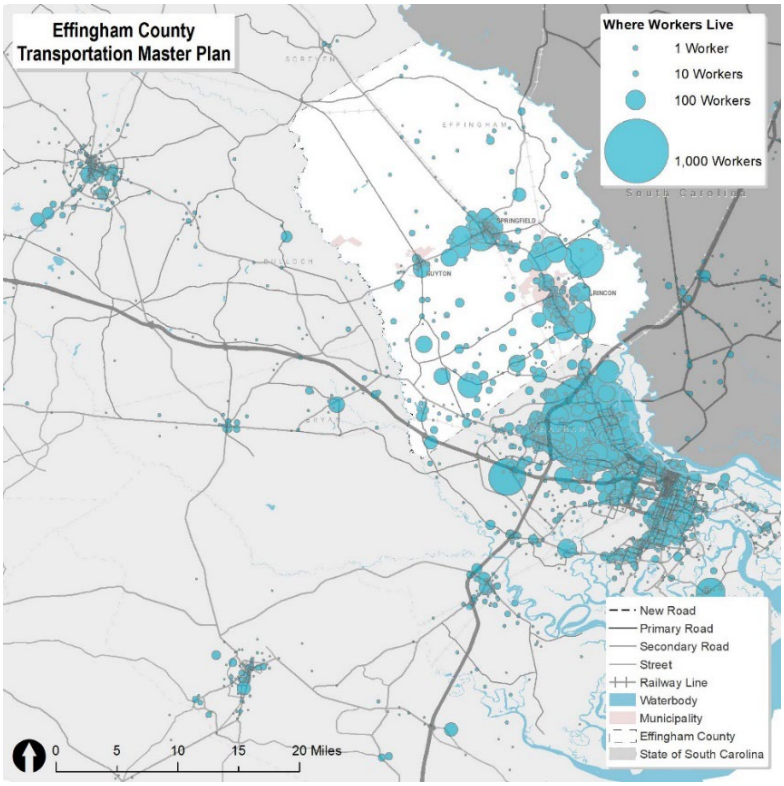


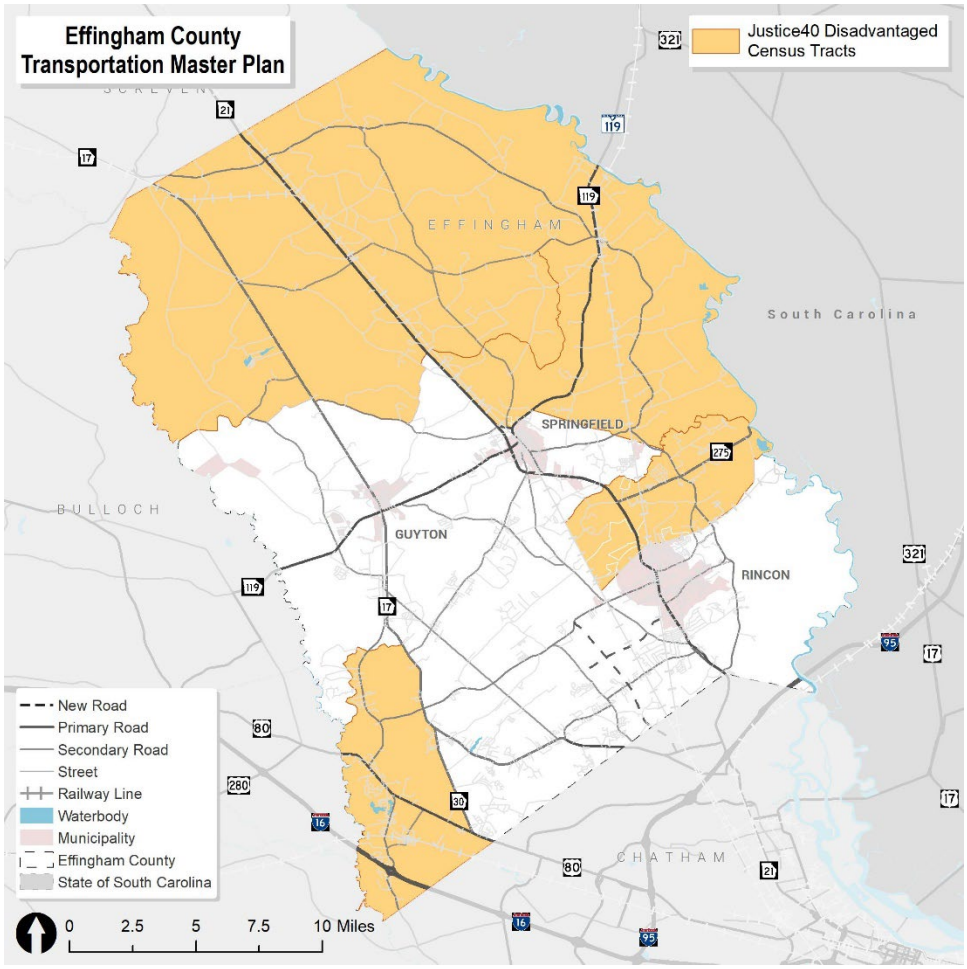
Figure 2-5: Home Locations of Effingham County Workers



DISADVANTAGED COMMUNITIES

The map in Figure 2-6 below illustrates federally designated Justice40 disadvantaged census tracts in Effingham County. The Justice40 Initiative aims to allocate 40% of all benefits from federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities. This is particularly relevant to Effingham County as it sheds light on areas within the county that may be facing underinvestment and require targeted support. Many of these census tracts north of SR 119 may be located in the rural areas of Effingham County. Identifying these disadvantaged tracts allows for efforts to be directed towards implementing projects and allocating funding to address specific needs within these communities, thereby avoiding disproportionate impacts and promoting sustainability across the county.

Figure 2-6: Justice40 Disadvantaged Census Tracts



ANTICIPATED DEVELOPMENTS

The County provided information about the anticipated developments expected in the future as part of the planning process. These developments are listed in Table 2-1 below. Significant development is identified in the southwestern area of the County. Strong residential new development is on or near Hwy 30 and Hodgeville Road. Approximately 4,776,350 square feet of industrial development is expected in the County with 3,616,100 square feet occurring near Rincon.

Large active and anticipated major developments impact the capacity, operational, and safety needs of the surrounding transportation network. Potential transportation project recommendations will be developed within the context of the mobility and connectivity needs resulting from these developments.

Table 2-1: Anticipated Developments within Effingham County

	Development Name	Location	# of Homes	Development Type
Residential	Bulls Run	Hwy 30	217	Townhomes
	Pine Grove	Hwy 30	141	Townhomes
	Creekside Ph. 2A	Hwy 30	155	Single Family detached (rental)
	Oglethorpe Landing Ph. 2	Ebenezer Rd.	45	Single Family detached (rental)
	Windfield Townhomes	Hwy 30	33	Townhomes
	Laurel Grove	Hwy 30	224	Single Family detached
	Brunson Station	Hwy 30	304	Single Family detached & Townhomes
	Palm Ridge	Zittrouer Rd.	97	Single Family detached
	Blue Jay & Hwy 17 Apartments	Blue Jay & Hwy 17	288	Apartments
	Highway 21 Multifamily	McCall Rd & Hwy 21	288	Apartments
	New Haven Ph. 2	Hodgeville Rd.	42	Townhomes
	New Haven Ph. 3 & 4	Hodgeville Rd.	172	Single Family detached
	Earl Lain Road PD	Earl Lain Rd. & Hodgeville	172	Single Family detached
	Earl Lain Road R-5	Earl Lain Rd. & Hodgeville	260	Single Family detached
	Waterford Apartments	Goshen Rd.	60	Apartments
	Development Name	**Location**	**# of Buildings**	**Approximate Square Foot of Warehouse/Buildings**
Industrial	Effingham Business Center	Abercorn & Old Augusta Rd.	3	1,072,200
	Hwy 80 Warehouse	Hwy 80 & George Rd.	1	1,160,250
	Exley North (Hwy 21)	Hwy 21	7	2,543,900
Commercial	Morgan Corp.	Old River Rd. & Hwy 16	2	30,000
	Dollar General Shawnee Rd.	Hwy 21 & Shawnee Rd.	1	10,640
	Pizza Restaurant	1086 Long Bridge Rd.	1	1,500
	Craig Johnson Event Venue	Stillwell Rd.	1	4,200

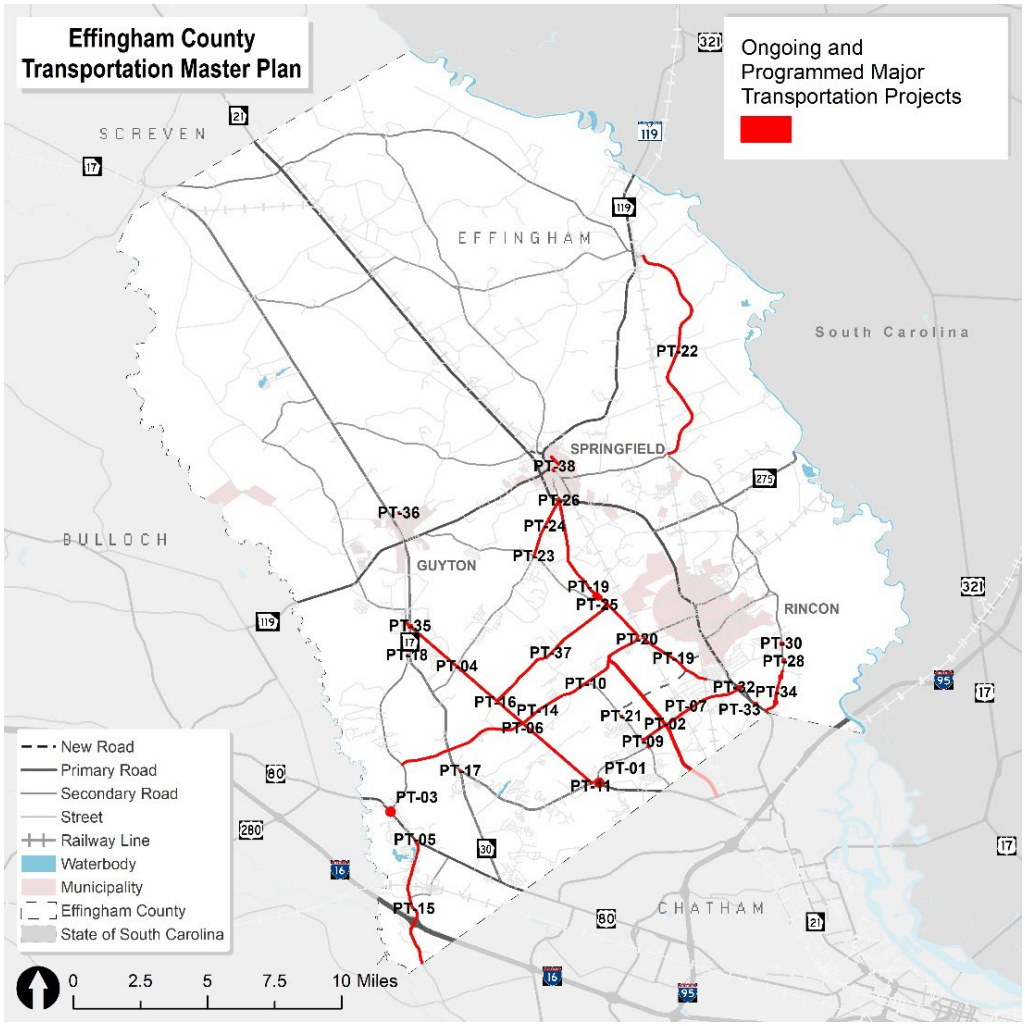
ONGOING AND UPCOMING PROJECTS

The Effingham County Transportation Special Purpose Local Option Sales Tax (TSPLOST) program includes a number of major transportation projects that will address existing and future transportation needs. The Georgia Department of Transportation (GDOT) also performs capacity and safety improvement projects along state routes and off System. The TSPLOST program and GDOT's GeoPI database were reviewed to identify ongoing and programmed major transportation projects. The new capacity, operational, and safety analysis data collected in these plans will be used to verify that these projects sufficiently address transportation needs and evaluate alternatives where appropriate. In addition to the major transportation projects listed below, the TSPLOST program includes 97 roadway resurfacing projects totaling $52,672,074 in cost.

Table 2-2: Effingham County TSPLOST and GDOT Projects

ID	Project	Source
PT-01	SR 30 @ Kolic Helmy Road	GeoPI Database - PI 0029095
PT-02	Effingham Parkway from SR 30 to Blue Jay Road	GeoPI Database - PI 0020175
PT-03	SR 26/US 80 @ CR 311/Sandhill Road Roundabout	GeoPI Database - PI 0019658
PT-04	Courthouse & Midland Intersection	Effingham County TSPLOST
PT-05	Old River Rd & Hwy 80	Effingham County TSPLOST
PT-06	Blue Jay Turn Lanes	Effingham County TSPLOST
PT-07	Goshen Rd Widening	Effingham County TSPLOST
PT-08	Hodgeville @ Kolic Helmey Roundabout	Effingham County TSPLOST
PT-09	Hodgeville @ Goshen Roundabout	Effingham County TSPLOST
PT-10	Hodgeville @ Blue Jay Turn Lanes	Effingham County TSPLOST
PT-11	Midland Rd @ Hwy 30	Effingham County TSPLOST
PT-12	McCall Rd @ Little McCall Turn Lanes	Effingham County TSPLOST
PT-13	Courthouse Rd @ McCall Realignment	Effingham County TSPLOST
PT-14	Blue Jay Road	Effingham County TSPLOST
PT-15	Old River Road	Effingham County TSPLOST
PT-16	Midland Road	Effingham County TSPLOST
PT-17	SR 30/SR 17 Intersection	Effingham County TSPLOST
PT-18	Sand Hill/Wesley Drive Intersection	Effingham County TSPLOST
PT-19	McCall Road	Effingham County TSPLOST
PT-20	Blue Jay Road/McCall Road Intersection	Effingham County TSPLOST
PT-21	Hodgeville Road/Gateway Parkway Intersection	Effingham County TSPLOST
PT-22	Stillwell-Clyo Road	Effingham County TSPLOST
PT-23	Courthouse Rd/Little McCall Road	Effingham County TSPLOST
PT-24	Courthouse Road	Effingham County TSPLOST
PT-25	Little McCall/McCall/Rahn Station Intersection	Effingham County TSPLOST
PT-26	SR21/McCall (Springfield)	Effingham County TSPLOST
PT-27	Old Augusta Road/General Way	Effingham County TSPLOST
PT-28	Old Augusta Road/Logistics Parkway	Effingham County TSPLOST
PT-29	Old Augusta Road/Logistics Parkway	Effingham County TSPLOST
PT-30	Old Augusta Road/Chimney Road	Effingham County TSPLOST
PT-32	SR 21/Goshen Road Extension	Effingham County TSPLOST
PT-33	SR 21/Commerce Drive	Effingham County TSPLOST
PT-34	Old Augusta Road	Effingham County TSPLOST
PT-35	SR 17/Midland Road	Effingham County TSPLOST
PT-36	Magnolia Steet Extension North	Effingham County TSPLOST
PT-37	Lowground Road	Effingham County TSPLOST
PT-38	Madison Lane Improvements	Effingham County TSPLOST
PT-39	Railroad Lane Improvements	Effingham County TSPLOST

Figure 2-7: Effingham County TSPLOST and GDOT Projects



ROADWAY INVENTORY

This section offers a comprehensive overview of the county's existing road inventory encompassing roadway functional classifications, the number of lanes on roadways, railroad infrastructure, and the condition of bridges. These aspects contribute to the efficiency and safety of transportation within Effingham County, serving as foundational components for supporting economic growth, enhancing the quality of life for residents and commuters alike, and facilitating movement and connectivity across the region.

FUNCTIONAL CLASSIFICATION

Functional Classification refers to the categorization of a roadway based on its intended purpose. There are three basic roadway functional classifications: arterials, collectors, and local roads.

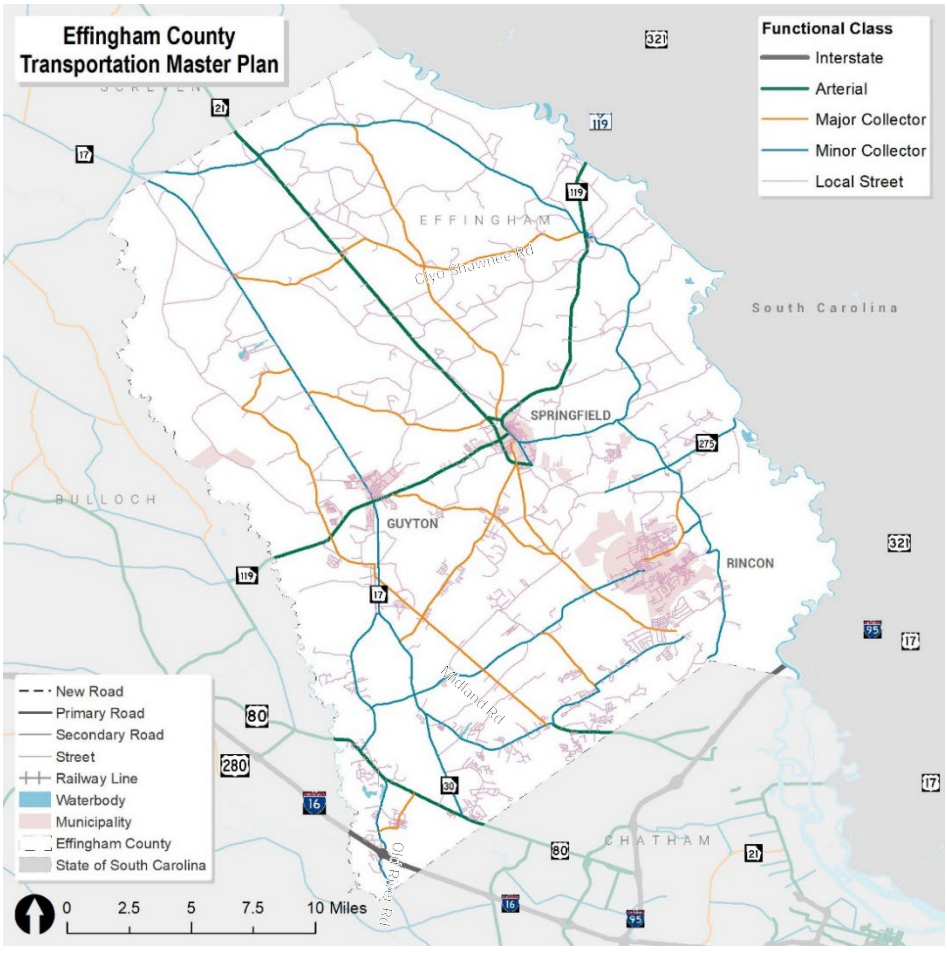
Arterials: serve as major traffic corridors, typically connect large urban areas, and are intended for rapid, long-distance travel, providing a high level of mobility.
Collectors: gather traffic from local streets and feed it into arterials while providing shorter-distance mobility.
Local roads: primarily serve neighborhoods and provide access to land use and developments. In some areas, these roads may be unpaved.

The functional classification of a roadway may change over time due to shifts in its surrounding area or improvements made to the roadway itself.

The map in 2-8 below illustrates the functional classification of roadways in Effingham County. I-16 and I-95 offer regional connectivity, with SR 21 directly connecting to I-95. Old River Road, serving as a minor collector and directly connecting to I-16 is an example of a corridor where the functional classification is mismatched to the current function of the road. Being a minor collector, Old River Road may lack the capacity or infrastructure required to efficiently manage traffic flow between I-16, US 80, which runs parallel to I-16, and other key destinations within the county. This could lead to congestion, safety concerns, and delays for commuters relying on this route for their daily travel. Additionally, along the Old River Road corridor, there are industrial land uses generating significant truck traffic, adding to congestion and safety concerns. Inadequate road capacity on minor collectors like Old River Road may hinder economic development and access to essential services along this corridor. Therefore, addressing the capacity and functionality of minor collectors like Old River Road is necessary for improving mobility and connectivity and supporting the overall growth and development of Effingham County.

Primary arterials in the county include US 80, SR 119, and SR 21. SR 119 facilitates east-west connectivity, while SR 21 supports north-south connectivity. While the map provides a comprehensive overview of the county's road network, it also highlights areas where improvements may be needed. For instance, there may be a shortage of major collectors for efficient east-west travel. Additionally, as the county develops, certain collector roads, such as Clyo Shawnee Road, Midland Road, and SR 21 south of SR 119, may require upgrading to arterial status to enhance mobility. There may also be an increased demand for additional local roads to provide connectivity between various local developments. As Effingham County continues to grow, this map may serve as a valuable tool for transportation planning, identifying areas in need of infrastructure upgrades and informing decisions to enhance mobility and connectivity throughout the county.

Figure 2-8: Effingham County Functional Classification

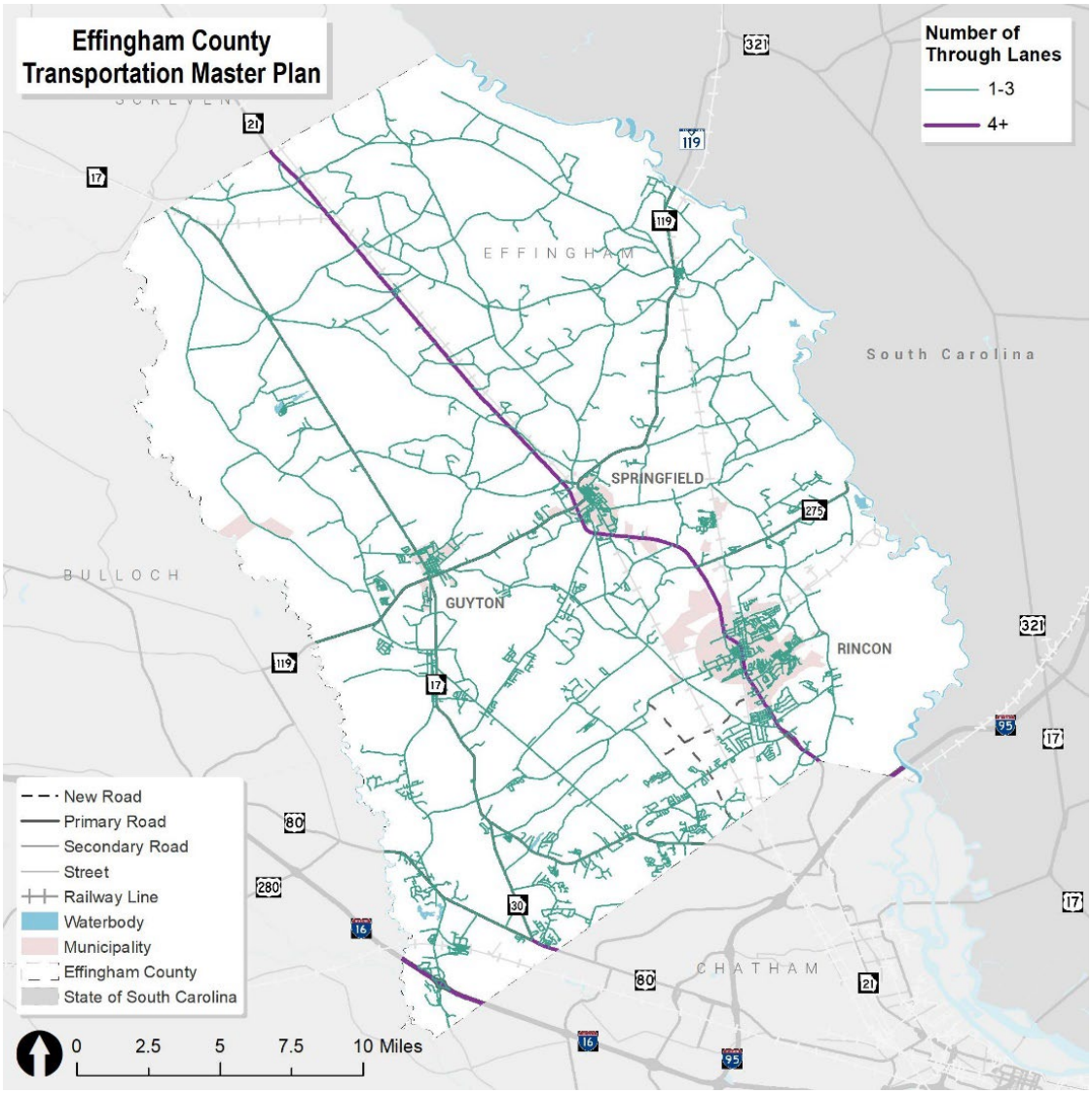


EXISTING ROADWAY – NUMBER OF LANES

The number of lanes on a roadway directly impacts the capacity of a roadway at any given time. The map below depicts the number of bi-directional through lanes on Effingham County roads. Bi-directional lanes allow vehicles to travel in both directions along the same stretch of road, typically separated by a centerline or median. Notably, a majority of Effingham County roads have 2 bi-directional through lanes, as shown in Figure 3. SR 21, a section of US 80, I-95, and I-16 have 4 lanes, indicating higher capacity.

Effingham County benefits from the presence of two interstates, which greatly enhance regional connectivity and accessibility. I-95 connects Effingham County to Chatham County and the state of South Carolina, while I-16 provides a direct link to Savannah and serves as a gateway to major cities like Macon and Atlanta when I-16 joins I-75. This robust interstate network not only facilitates the transportation of goods and people within the region but also attracts economic development opportunities such as distribution centers and logistics hubs. As a result, Effingham County experiences increased economic activity, making further investments in transportation infrastructure essential to support continued growth and prosperity.

Figure 2-9: Number of Through Lanes



RAILROAD / RAIL CROSSING

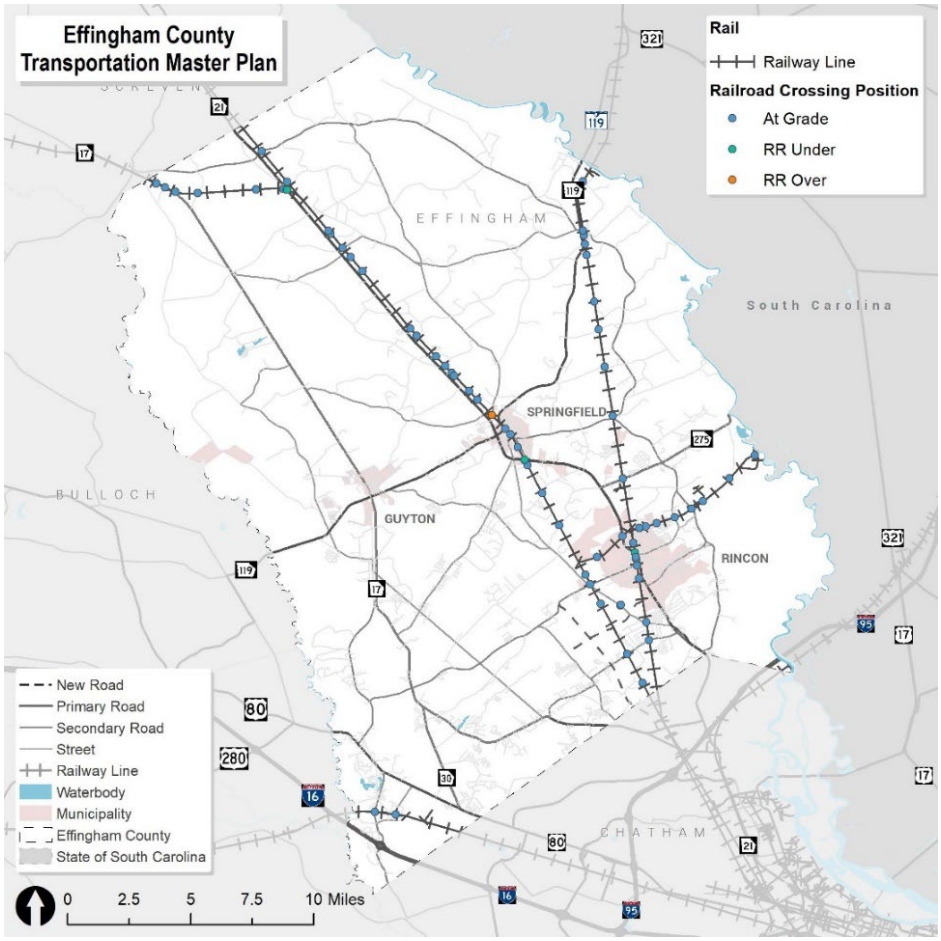
Norfolk-Southern and CSX both own and operate rail in Effingham County. Norfolk-Southern operates a north-south rail line situated in the central portion of the county, linking Savannah to Springfield and Shawnee, and extending further to Screven County. This line is exclusively utilized for freight transportation. On the eastern side of the county, CSX owns a rail line connecting Savannah to Denmark, SC via Rincon and Clyo. While primarily dedicated to freight transportation, this line also hosts daily Amtrak service.

Because these railway lines are privately owned and operated, Effingham County's role primarily lies in ensuring safety at crossings. There are 68 rail crossings in Effingham County, comprising 62 at-grade crossings, 5 underpasses, and 1 overpass. An at-grade rail crossing, also known as a level crossing, refers to an intersection where a roadway and a railway track intersect at the same level and vehicles must cross the tracks directly. This type of crossing can be either protected by barriers, gates, or warning signs, or uncontrolled with no barriers.

In an underpass rail crossing, the railway track passes beneath the roadway, allowing vehicles to traverse over the railway via bridges. Conversely, in an overpass rail crossing, the railway track spans above the roadway, enabling vehicles to travel beneath the railway through tunnels. In both types of railway crossings, vehicles maintain a separation from the tracks.

Grade crossings, categorized as either public or private, play a crucial role in transportation infrastructure by facilitating the safe passage of vehicles over railway tracks. Public crossings, maintained by public authorities, ensure the safety and accessibility of roads for all users. On the other hand, private crossings, typically located on privately-owned roadways such as farms or industrial areas, provide essential access for property owners and their authorized visitors. Effingham County's 17 private crossings and 51 public crossings contribute to the efficient movement of people and goods while maintaining safety standards across the region's transportation network.

Figure 2-10: Railroad Inventory



Bridge Conditions

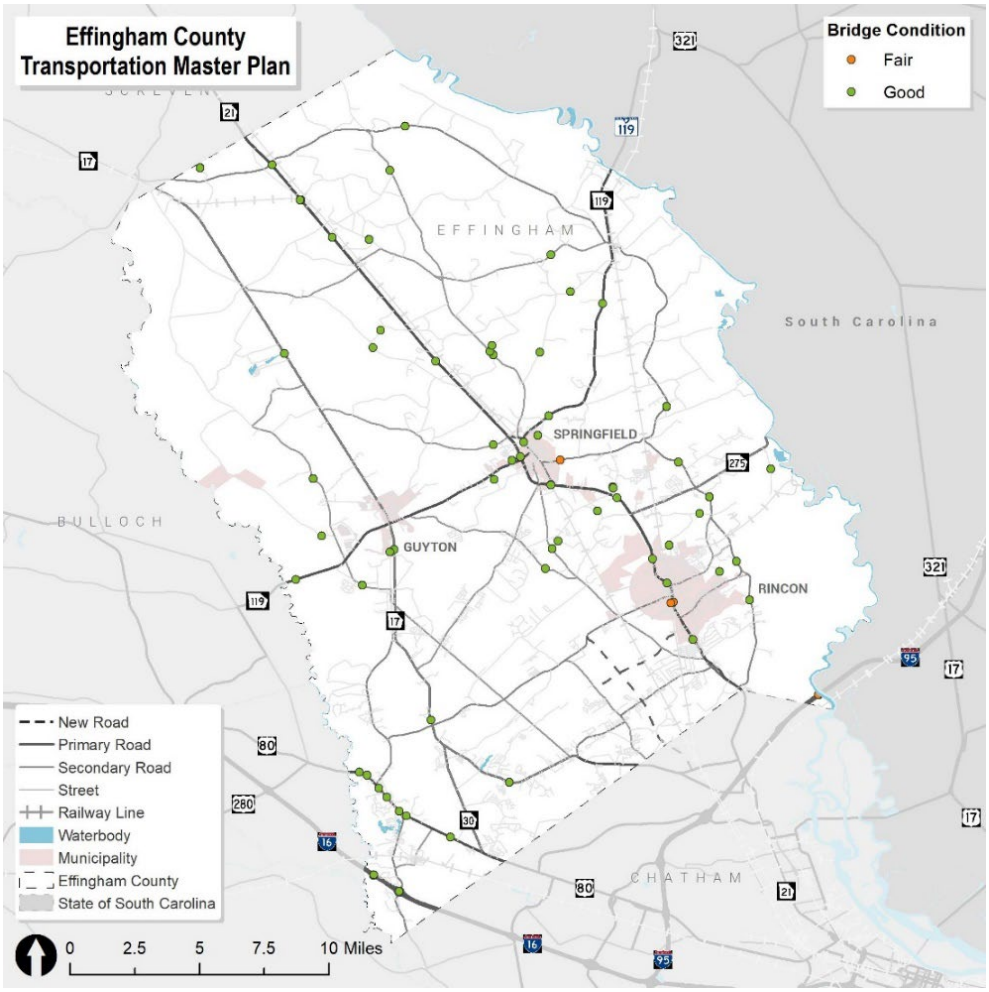
The state of Effingham County bridges was assessed by reviewing the National Bridge Inventory (NBI) database, which comprehensively records bridge information and inspection results nationwide. Each bridge is assigned a rating of Good (G), Fair (F), or Poor (P) based on the lowest condition rating among Deck, Superstructure, Substructure, or Culvert from the most recent inspection. Bridges with a rating of 7 or higher are deemed Good, while those with a rating of 4 or lower are classified as Poor. Bridges with ratings of 5 or 6 are categorized as Fair.

Effingham County has a total of 73 bridges, with 68 classified as Good and 5 as Fair condition. Notably, there are no bridges in Poor condition within the county. Table 2-3 shows the bridges in Effingham County with a Bridge Condition of Fair while Figure shows the locations of bridges and their corresponding bridge condition.

Table 2-3: Bridge Sufficiency

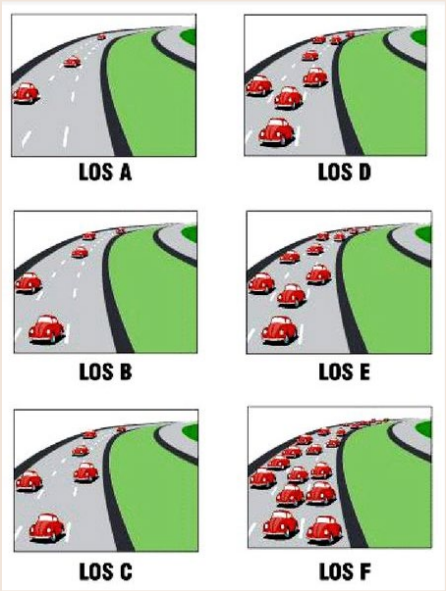
Locations of Bridges with a Bridge Condition of Fair			
Location	**Rating**	**Roadway**	**Feature**
Rincon City Limits	6	SR 21	Dasher Creek
Rincon City Limits	6	I-95 (NBL)	Savannah River
Rincon City Limits	6	I-95 (SBL)	Savannah River
Springfield City Limits	6	Stillwell Road	Ebenezer Creek
Rincon City Limits	6	Carolina Avenue	Dasher Branch

Figure 2-11: Bridge Sufficiency



TRAFFIC CONGESTION ANALYSIS

Analysis of the operations of transportation facilities within the county was performed in order to identify locations with poor levels of service. As the majority of traffic congestion occurs at intersections, intersections were the focus of capacity analysis in this study. The intersections were evaluated by determining their AM and PM peak hour level of service (LOS). Level of service is a categorization of the quality of traffic flow, with LOS A representing near free flow conditions and LOS F representing a breakdown of traffic flow due to poor congestion.



Poor level of service (defined as LOS E or F) at intersections is the result of long vehicle delays. High delays within the transportation network can negatively affect resident quality of life and the local economy as well as lead to an increased risk of crashes. Therefore, locations operating with high delay were identified as potential targets of capacity improvement projects such as turn lane additions, roundabout installation, or signalization. Operational analysis of intersections within the county was performed for existing 2024 conditions as well as 2050 'no-build' conditions, evaluating the existing roadway network against projected future traffic demand to determine capacity needs.

TRAFFIC VOLUMES

ANALYSIS INTERSECTIONS

Forty-nine intersections within the county were selected for capacity analysis. Location selections came from previously analyzed intersections in the previous Effingham County TMP and additional locations identified by the county. Study intersections within the county operate under four different control types:

Minor Street Stop Control: the major street of an intersection operates under free flow conditions while the minor street approaches are controlled by stop sign.
All-Way Stop Control: all approach legs of an intersection are controlled by stop sign.
Roundabout Control: a roundabout is present at the intersection, with approaching vehicles yielding to traffic circulating within the roundabout. Single Lane and Multi Lane Roundabouts are present within the county.
Traffic Signal Control: traffic signal heads control all approach legs of the intersection.

Traffic signals and roundabouts throughout the county are primarily located along state routes, with intersections of local roads typically operating under stop control. While stop control provides sufficient capacity and operational conditions for intersections of low volume roads, as traffic volumes increase vehicles can experience heavy delay.

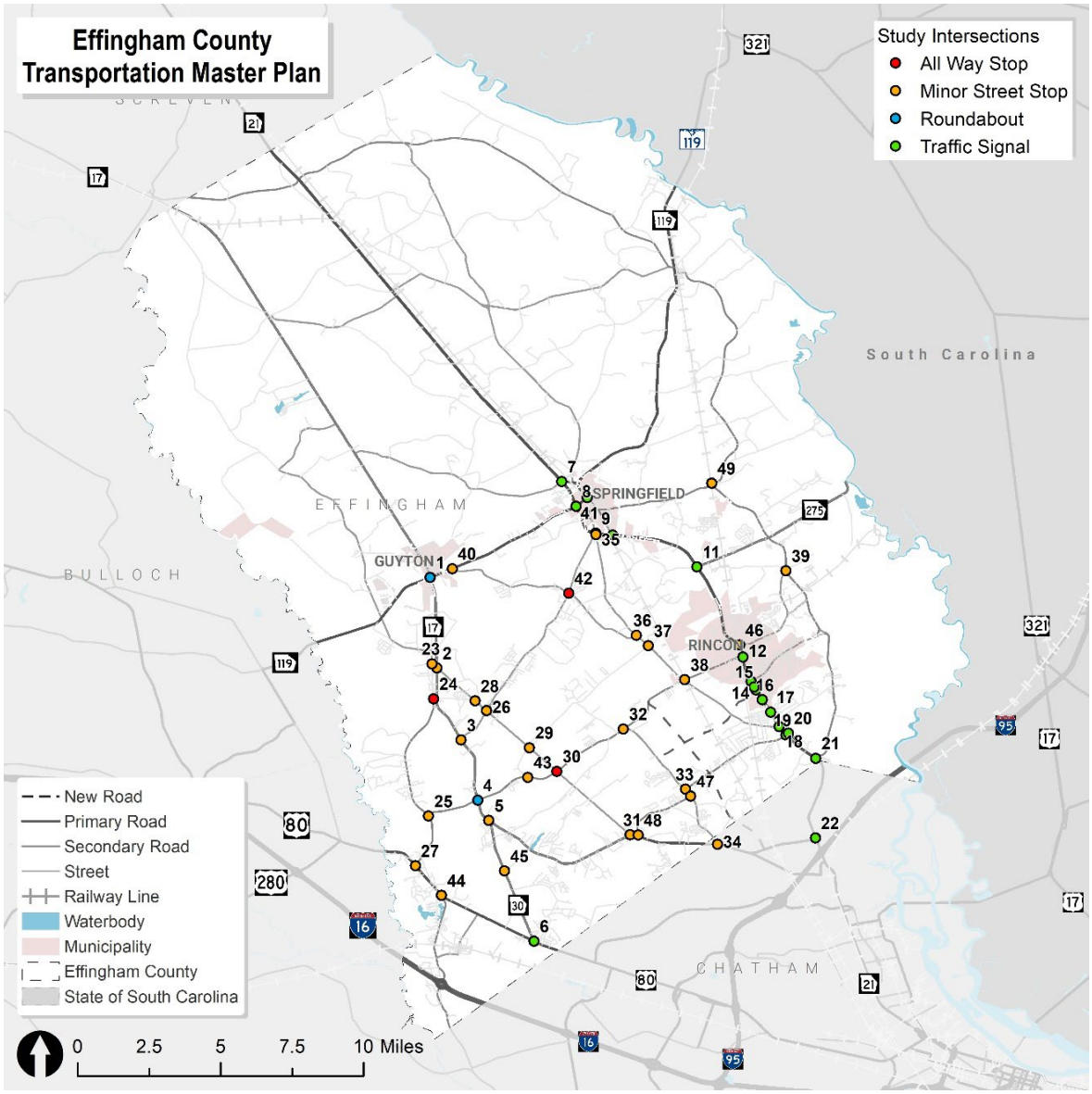
While several of these intersections such as those along Blue Jay Road are being examined more thoroughly in separate studies, they were included in this countywide analysis for context. Analysis intersection locations are presented in Table 2-4 and Figure 2-12 using map identification as assigned in the previous TMP.

Table 2-4: Study Intersections (TMC Locations)

Map ID	Intersection	Existing Control
1	SR 17 at SR 119/Springfield Avenue	Roundabout
2	SR 119 at Little McCall Road	Minor Street Stop
3	SR 119/Laurel Street at SR 119/Madison Street	Traffic Signal
4	McCall Road at Little McCall Road	Minor Street Stop
5	McCall Road at Low Ground Road	Minor Street Stop
6	McCall Road at Blue Jay Road/Blandford Road	Minor Street Stop
7	McCall Road at Courthouse Road	Minor Street Stop
8	Courthouse Road at Little McCall Road	All Way Stop
9	US 80 at SR 30	Traffic Signal
10	US 80/SR 26 at Old River Road	Minor Street Stop
11	US 80 at Sand Hill Road	Minor Street Stop
13	Sand Hill Road at Marlow Road	All Way Stop
14	Central Avenue at Midland Road	Minor Street Stop
14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Minor Street Stop
15	SR 17 at Midland Road	Minor Street Stop
16	SR 17 at Courthouse Road	Minor Street Stop
17	SR 17 at Blue Jay Road	Roundabout
18	SR 17 at SR 30	Minor Street Stop
19	SR 17 at Marlow Road	Minor Street Stop
20	SR 17 at Jabez Jones Road	Minor Street Stop
21	Blue Jay Road at Low Ground Road	Minor Street Stop
22	Midland Road at Courthouse Road	Minor Street Stop
23	Midland Road at Low Ground Road	Minor Street Stop
24	Blue Jay Road at Midland Road	All Way Stop
25	SR 30/Noel C. Conaway Road at Midland Road	Minor Street Stop
26	SR 30 at Hodgeville Road	Minor Street Stop
27	SR 30 at Kolic Helmey Road	Minor Street Stop
28	Blue Jay Road at Hodgeville Road	Minor Street Stop
29	Hodgeville Road at Goshen Road	Minor Street Stop
30	Hodgeville at Kolic Helmey Road	Minor Street Stop
31	Old Augusta Road/Fort Howard Road at Fort Howard Road	Minor Street Stop
32	SR 21 at SR 21/Old Tusculum Road	Traffic Signal
33	SR 21 at SR 119	Traffic Signal
34	SR 21 at McCall Road	Minor Street Stop
35	SR 21 at Laurel Street	Traffic Signal
36	SR 21 at SR 275/Ebenezer Road	Traffic Signal
37	SR 21 at Ninth Street	Traffic Signal
38	SR 21 at Fort Howard Road	Traffic Signal
39	SR 21 at Prosperity Drive/Walmart Access	Traffic Signal
40	SR 21 at Kroger/Goody's Access	Traffic Signal
41	SR 21 at Towne Park Drive	Traffic Signal
42	SR 21 at Westwood Drive/Silver Lake Drive	Traffic Signal
43	SR 21 at McCall Road	Traffic Signal
44	SR 21 SB at Goshen Road	Traffic Signal

Map ID	Intersection	Existing Control
45	SR 21 NB at Goshen Road	Traffic Signal
46	SR 21 at Old Augusta Road	Traffic Signal
47	SR 17 at SR 30	Traffic Signal
48	SR 21 at 4th Street	Minor Street Stop
49	Stillwell Road at Long Bridge Road	Minor Street Stop

Figure 2-12: Study Intersections



CORRIDORS – VOLUME ADJUSTMENT

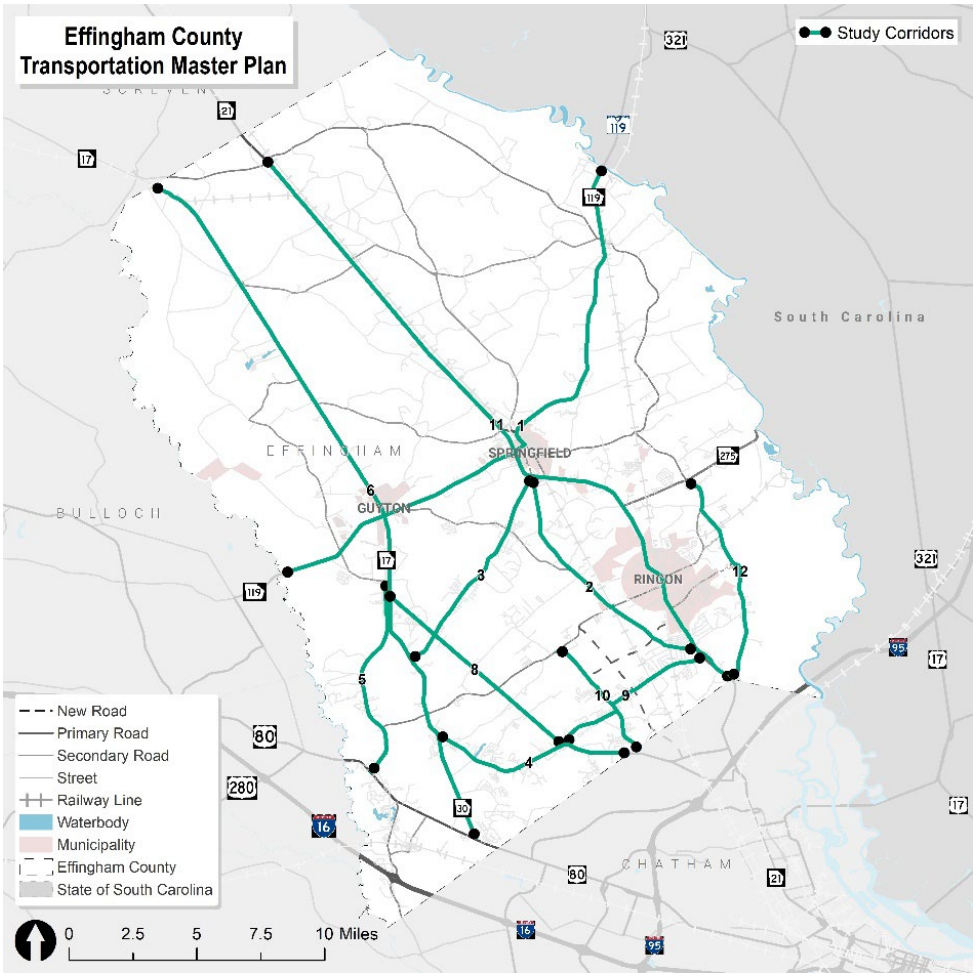
In order to evaluate the operational performance of study intersections, AM and PM peak hour intersection turning movement volumes were developed for use in capacity models. The primary source utilized for initial intersection volumes was traffic count data consisting of intersection turning movement counts (TMCs) obtained from the previous 2021 TMP plan. However, in order to ensure changes in traffic patterns from 2021-2024 were properly accounted for, Average Daily Traffic (ADT) counts along defined corridors throughout the county were collected throughout the county at locations they were also collected in 2021 to perform comparative analysis. The 2021 data

was adjusted for COVID-19 and projected growth over a three-year period using information from the previous TMP, developing a projected 2024 ADT, and an initial adjustment factor to apply to 2021 TMC data to develop 2024 intersection volumes. For corridors where the collected 2024 data exceeded the projected 2024 data, the adjustment factor was increased to match the ratio of 2024 data to 2021 data. These calculations are presented below. These factors were applied to 2021 TMC data to develop 2024 existing conditions turning movement volumes.

Table 2-5: Study Corridors (ADT Count Locations)

Corridor	ID	2024 ADT	2021 ADT	COVID Factor	Growth Factor	Projected 2024 ADT	Percent over Projection	Corridor Volume Adjustment Factor
SR 119	1	9,667	7,014	1.13	1.11	8,787	10.0%	1.22
McCall Road	2	3,255	2,348	1.13	1.11	2,942	10.6%	1.23
Courthouse Road	3	4,071	2,968	1.13	1.11	3,718	9.5%	1.21
US 80	4	26,113	23,758	1.13	1.11	29,765	-12.3%	1.11
Sand Hill Road	5	5,579	3,846	1.13	1.11	4,818	15.8%	1.28
SR 30/SR 17	6	13,820	10,722	1.13	1.11	13,433	2.9%	1.14
Low Ground Road	7	308	251	1.13	1.11	314	-1.9%	1.11
Midland Road	8	5,582	4,636	1.13	1.11	5,808	-3.9%	1.11
SR 30/Kolic Helmey Rd/Goshen Road	9	4,067	3,792	1.13	1.11	4,751	-14.4%	1.11
Hodgeville Road	10	11,712	9,138	1.13	1.11	11,449	2.3%	1.13
Old Augusta Road	11	9,061	6,580	1.13	1.11	8,244	9.9%	1.22
SR 21	12	22,857	19,916	1.13	1.07	24,952	-8.4%	1.11

Figure 2-13: Volume Adjustment Corridors



TRAFFIC FORECASTING METHODOLOGY

In order to appropriately assess the capacity needs of the transportation network, traffic volume forecasting was performed, as evaluating the future demand on transportation facilities can help determine where projects are necessary to prevent future congestion and long delays. In this study, the methodology utilized developed a series of compound annual growth rates (CAGR) and applied them to 2024 traffic volumes to calculate volumes for 2050 conditions. Two growth rates were developed, a short-term rate and a long-term rate.

Short-term Growth Rate

GDOT maintains a database of Annual Average Daily Traffic (AADT) at select locations, or Traffic Count (TC) stations, yearly throughout the state of Georgia. An annual growth rate was calculated from this historical traffic count station data to project changes in traffic volumes from 2024-2030. Historical growth patterns are a good indicator of growth trends in the near future on a local and regional level. Some locations experienced a significantly higher rate of growth than others, as certain roadways were more heavily used by travelers accessing new developments, schools, or other traffic generators within and outside of the county. While lower volume roadways present unusual growth rates due to the higher variance of traffic volumes based on day of collection, this was mitigated by using a weighted average to determine the overall rate. The calculation of the short-term growth rate, determined to be 3.34% is shown in Table 2-6. This rate reflects high levels of traffic volume growth, which was determined to be reasonable given the high intensity of recent and ongoing commercial and residential throughout the county.

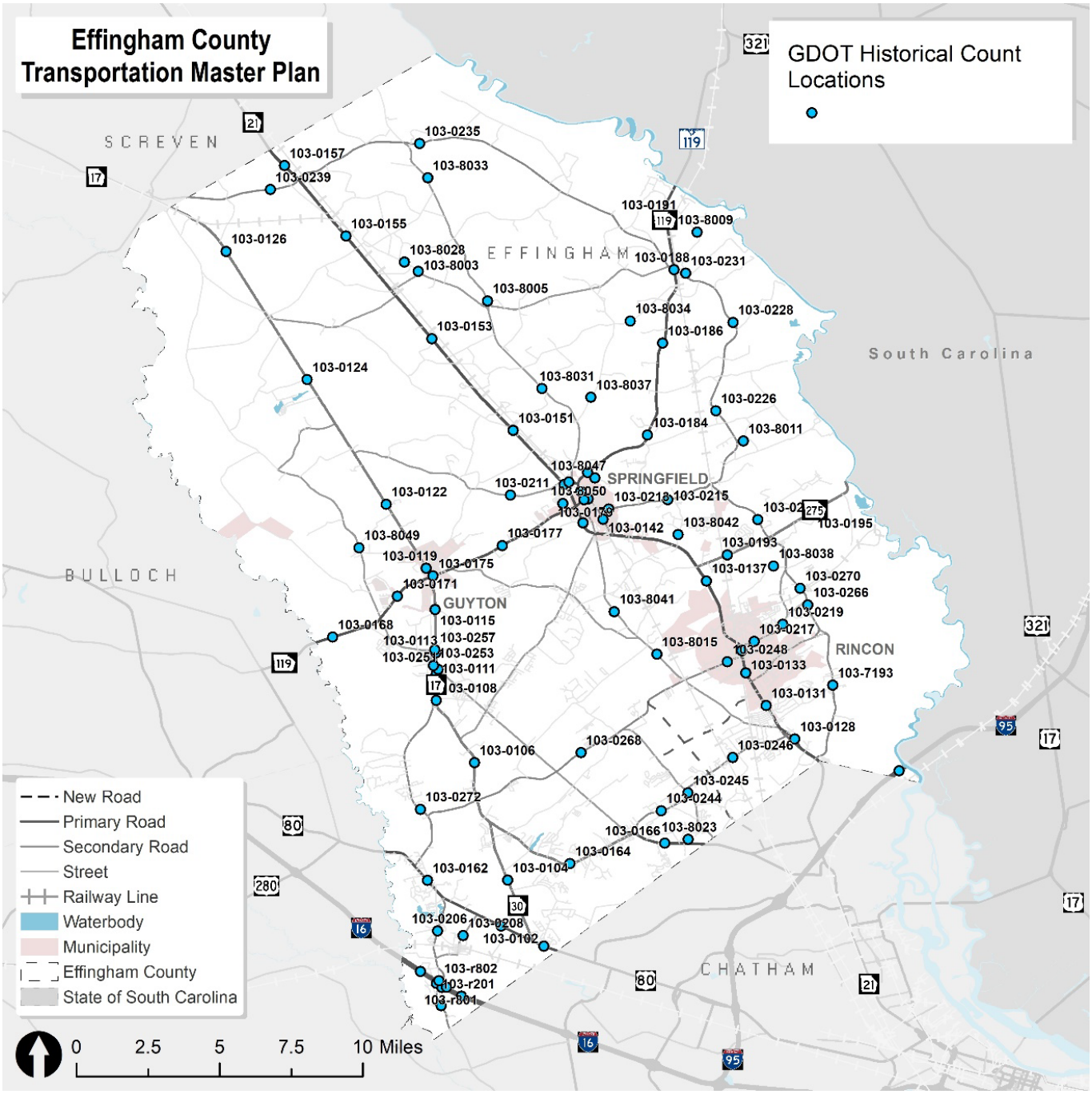
Table 2-6: Short-Term Growth Rate Calculation

GDOT Traffic Count Station	AADT								CAGR
	2013	2014	2015	2016	2017	2018	2019	2022	
103-0102	16910	21700	22400	24800	25000	22700	24900	24400	3.07%
103-0104	9350	9350	9490	9770	10900	10800	12100	10900	2.63%
103-0106	4660	5170	5420	6650	6850	6870	6870	7040	4.83%
103-0108	4410	4410	4730	4980	5130	5060	5010	4450	0.56%
103-0111	3600	4610	4830	5080	5230	5160	5590	**5230**	3.49%
103-0113	6320	6320	6800	7150	7370	7270	7740	7930	2.80%
103-0115	4870	4670	4900	5710	5880	6320	6320	6890	4.76%
103-0119	4670	4670	4780	5030	5180	5110	5070	5320	1.54%
103-0122	1970	2370	2480	2610	2690	2650	2630	2090	0.48%
103-0124	1530	1530	1500	1580	1630	1610	2140	1430	0.83%
103-0126	1130	1190	1250	1320	1360	1340	1580	1220	1.66%
103-0128	28270	28300	26800	27600	27800	27600	31500	30700	1.27%
103-0131	31040	28500	29400	29900	30100	31400	31600	35900	1.98%
103-0133	26930	26900	27400	28200	28600	28400	32600	33700	2.77%
103-0135	22050	20700	21400	22400	22600	23400	23600	26300	2.33%
103-0137	14870	14900	16500	17000	18100	18000	20400	21300	4.46%
103-0139	10940	4760	5000	5210	12200	13600	14000	15400	12.23%
103-0141	5330	5330	5650	5880	6060	6090	7380	7450	4.31%
103-0142	7010	7670	8040	8460	8710	8590	7150	6450	-1.19%
103-0144	6850	6850	6810	7170	7390	7290	6450	5910	-1.40%
103-0146	5280	4690	4930	5070	5230	5560	5720	5110	0.92%
103-0148	1420	1370	1440	1230	1270	1660	1710	1890	3.89%
103-0151	4590	4360	4580	5330	5500	5830	6010	6730	5.16%

GDOT Traffic Count Station	AADT								CAGR
	2013	2014	2015	2016	2017	2018	2019	2022	
103-0153	5690	5690	4150	4320	4450	4470	5600	5740	0.68%
103-0155	3260	4320	4540	4050	4180	4200	4330	5220	3.37%
103-0157	4640	4640	3150	3280	3380	3400	4130	4240	-0.44%
103-0162	10210	10200	9500	9890	10200	10200	12300	14100	3.88%
103-0164	4530	4530	4190	4310	4340	4310	5460	5620	2.82%
103-0166	5650	6810	7030	6850	6900	7930	8000	10000	5.55%
103-0168	2940	2940	3360	3500	3610	3630	4140	4420	4.93%
103-0171	3370	3920	4120	3810	3930	4480	4620	4690	3.38%
103-0175	7690	7690	7560	7870	8110	8150	8750	9370	2.43%
103-0177	5640	5080	5340	5990	6180	7100	7320	7810	5.07%
103-0179	3350	3350	2850	2970	3060	3070	3200	3040	-0.62%
103-0182	2880	2880	2520	2620	2700	2710	2990	2730	0.03%
103-0184	2240	2020	2120	2220	2290	2500	2570	2730	3.21%
103-0186	1730	1730	1780	1850	1910	1920	1940	1780	0.78%
103-0188	1230	1580	1660	1440	1480	1620	1670	1890	3.42%
103-0191	1720	1720	1510	1570	1620	1630	1990	2010	2.31%
103-0193	3340	2940	3080	3240	3340	3290	4620	4290	4.36%
103-0195	1040	1040	1400	1470	1510	1490	1290	1050	0.50%
103-0197	-	29900	29900	33200	36300	35800	37400	37200	3.16%
103-0199	-	28400	28400	31600	34600	33800	35000	34900	2.94%
103-0202	-	50300	55600	55600	55600	58400	59000	65500	2.89%
103-0204	2250	2250	2360	2480	2550	2510	2510	3360	4.05%
103-0206	3840	3840	3580	3770	3880	3830	4620	4720	2.79%
103-0208	620	620	650	970	1000	990	930	950	5.95%
103-0211	870	870	910	960	990	980	980	1030	2.01%
103-0213	1670	1670	1480	1560	1610	1670	1670	1820	1.19%
103-0215	1940	1940	2030	2140	1670	1650	1650	2440	0.75%
103-0217	2930	2930	3050	3120	2540	2580	2630	2860	-1.14%
103-0219	1490	1490	1050	1080	1100	1250	1270	1600	0.97%
103-0222	2680	2680	2810	3100	3190	3440	3440	4080	5.05%
103-0226	1090	1090	1140	1200	1240	1270	1270	1590	4.11%
103-0228	700	840	880	930	960	900	900	1010	3.02%
103-0231	650	650	1090	1150	1180	890	890	1040	4.09%
103-0235	430	410	430	450	460	550	550	720	6.38%
103-0239	570	570	600	630	900	890	890	1000	7.78%
103-0244	3280	3280	3410	3490	3480	3530	3610	4150	2.45%
103-0245	5030	5980	6220	6370	6500	7710	7860	8620	5.89%
103-0246	4750	4750	4940	5060	5160	5240	5340	6390	3.15%
103-0248	4880	4880	5080	5200	6370	6470	6600	8210	6.44%
103-0251	2100	2100	2180	2390	2440	2480	3000	3040	4.87%
103-0253	730	730	770	810	830	820	820	1000	3.28%
103-0257	1760	1760	1430	1500	1550	1530	1940	1980	1.89%
103-0266	4770	4770	4960	5080	6050	6140	6270	6690	4.56%

GDOT Traffic Count Station	AADT								CAGR
	2013	2014	2015	2016	2017	2018	2019	2022	
103-0268	3770	3770	3920	4010	5320	5400	5510	6370	7.00%
103-0270	4650	6190	6440	6600	6730	6920	7060	7190	3.76%
103-0272	4020	4020	4210	4430	3530	3480	3480	4630	0.09%
103-7193	2930	2930	3050	3120	5950	6040	6160	6660	12.38%
103-8003	300	300	310	220	230	230	180	180	-6.59%
103-8005	350	350	370	390	420	410	410	290	-0.95%
103-8009	370	370	390	410	420	410	410	380	0.61%
103-8011	140	90	90	90	90	50	50	50	-10.80%
103-8015	1410	1410	1480	1560	2200	2170	2170	2670	8.42%
103-8023	130	130	140	140	120	120	120	110	-2.26%
103-8028	210	180	190	200	210	200	200	190	-0.10%
103-8031	-	-	1360	1430	1470	1450	1370	1400	-0.05%
103-8033	320	320	340	360	370	370	370	200	-3.50%
103-8034	-	-	40	40	40	40	60	60	7.27%
103-8037	-	-	380	400	410	400	410	420	1.16%
103-8038	-	-	260	270	280	280	300	310	2.57%
103-8041	-	-	1860	1960	2020	1990	2360	2410	3.98%
103-8042	-	-	2910	3060	3150	3110	3450	3520	2.78%
103-8047	-	-	550	580	600	520	520	450	-3.44%
103-8049	520	520	550	540	560	550	550	640	2.00%
103-8050	-	-	1290	1360	1400	1170	1170	1070	-3.42%
103-8051	-	-	370	380	390	400	600		10.72%
103-r201	470	470	500	530	550	560	750	1210	10.75%
103-r202	1220	1220	1300	1290	1330	1350	1620	1990	5.53%
103-r801	1120	1120	1190	1280	1320	1340	1690	2730	9.98%
103-r802	510	510	540	570	590	600	780	1090	8.77%
							Weighted Average:		**3.34%**

Figure 2-14: GDOT Historical Count Data TC Station Locations



Long-term Growth Rate

A long-term growth rate was calculated using the CORE MPO regional Travel Demand Model (TDM) by comparing total vehicle miles travelled throughout county roadways between the 2015 and 2045 model scenarios. TDM data is generally less accurate than historical data as an estimation tool for short-term growth but is important to consider as it accounts for potential changes in demographics, land use, and socioeconomic conditions that may occur over a period of multiple decades. The growth rate calculated from the TDM was calculated to be 0.92%, which represents a moderately high rate of growth. This is a more reasonable projection of long-term growth, as the infrastructure within the county could not realistically support a growth rate of over 3% over multiple decades. However, within the context of the intense short-term growth, a long-term annual growth rate of 1% was selected in order to avoid underestimating future demand. This growth rate was applied to adjust turning movement volumes from 2030-2050. This calculation is shown in Table 2-9.

Table 2-7: Long-Term Growth Rate Calculation

Metric	Model Year		CAGR
	2015	2045	
Vehicle Miles Travelled	1,271,467	1,672,999	**0.92%**

TRAFFIC CONDITIONS

EXISTING CONDITIONS

The existing traffic conditions analysis results demonstrate generally good levels of service (typically defined as LOS D or better) throughout the county, with most intersections experiencing failure operating under minor street stop control. LOS and delay are calculated for the average of all intersection approaches for traffic signal, roundabout, and all way stop control while for minor street stop control the metrics are determined by the single approach leg with the highest delay. Locations experiencing LOS E or F under existing conditions are identified as high priority locations for operational and capacity improvement projects. These locations are primarily intersections involving two higher volume roadways operating under minor street stop control which is not sufficient to adequately meet demand or intersections along SR 21, a high-volume arterial roadway. Several LOS F locations have already been identified for GDOT or TSPLOST projects.

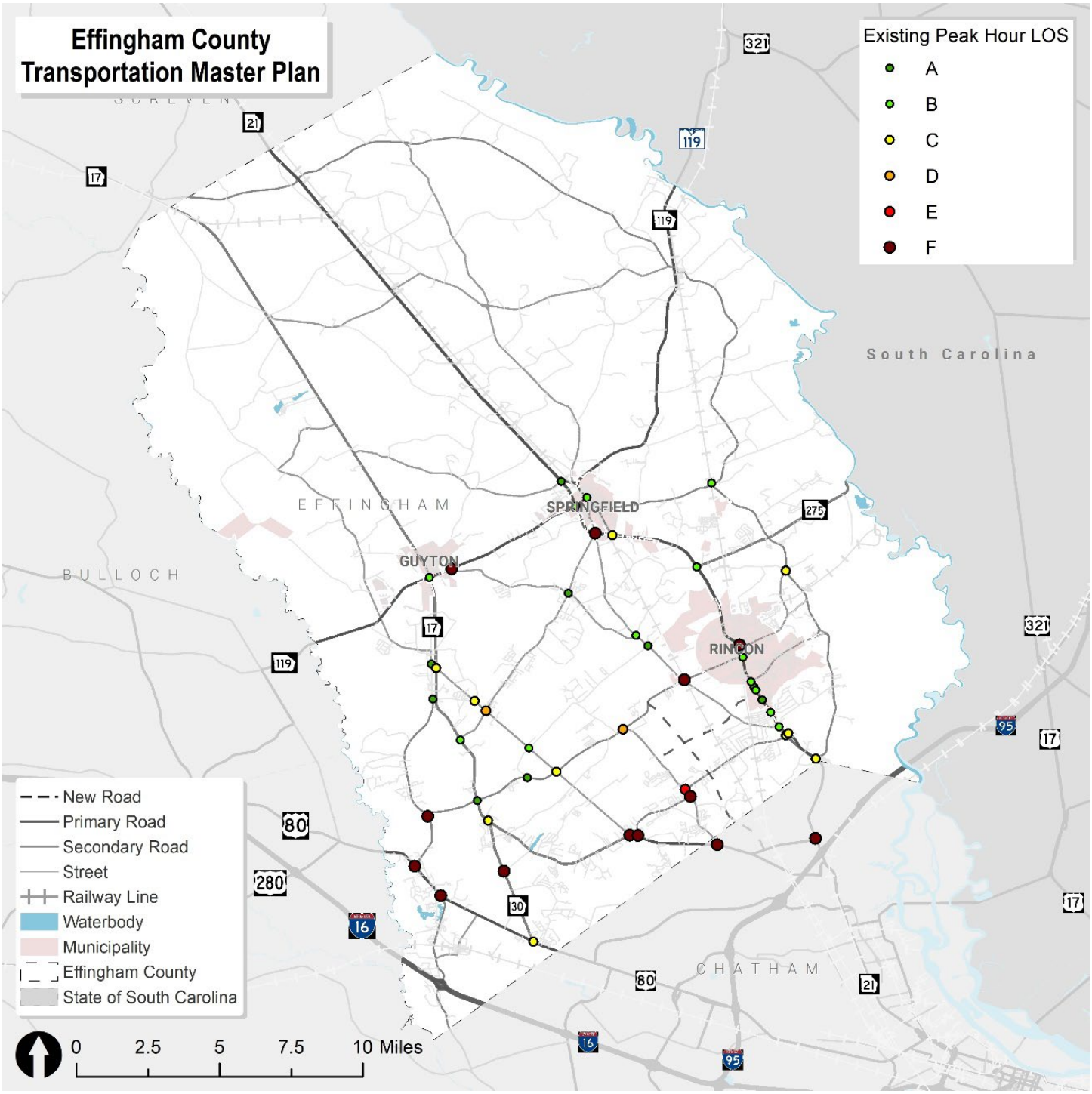
Table 2-8: Existing Level of Service and Delay

Map ID	Intersection	Control	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	SR 17 at SR 119/Springfield Avenue	Roundabout	A	7.8	B	11.1
2	SR 119 at Little McCall Road	Minor Street Stop	F	89.1	C	21.2
3	SR 119/Laurel Street at SR 119/Madison Street	Traffic Signal	B	16	B	12.8
4	McCall Road at Little McCall Road	Minor Street Stop	B	11.6	B	11
5	McCall Road at Low Ground Road	Minor Street Stop	A	0	A	0
6	McCall Road at Blue Jay Road/Blandford Road	Minor Street Stop	F	89.2	F	54.2
7	McCall Road at Courthouse Road	Minor Street Stop	B	11.6	B	14.5
8	Courthouse Road at Little McCall Road	All Way Stop	A	9.6	A	10
9	US 80 at SR 30	Traffic Signal	C	22.3	B	17.8
10	US 80/SR 26 at Old River Road	Minor Street Stop	D	27.9	F	320.2
11	US 80 at Sand Hill Road	Minor Street Stop	F	160.8	F	381.9
13	Sand Hill Road at Marlow Road	All Way Stop	A	8.5	A	7.8
14	Central Avenue at Midland Road	Minor Street Stop	A	9	A	9.4
14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Minor Street Stop	F	70.2	D	28.6
15	SR 17 at Midland Road	Minor Street Stop	C	17.9	C	19.1
16	SR 17 at Courthouse Road	Minor Street Stop	B	14.5	B	13.8
17	SR 17 at Blue Jay Road	Roundabout	A	6.6	A	6.5
18	SR 17 at SR 30	Minor Street Stop	B	11	C	16.2
19	SR 17 at Marlow Road	Minor Street Stop	C	15.1	C	17.5
20	SR 17 at Jabez Jones Road	Minor Street Stop	F	67	C	24.3
21	Blue Jay Road at Low Ground Road	Minor Street Stop	A	9.9	A	9.9
22	Midland Road at Courthouse Road	Minor Street Stop	D	25.9	D	25.2
23	Midland Road at Low Ground Road	Minor Street Stop	B	13.2	B	14.4

Map ID	Intersection	Control	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
24	Blue Jay Road at Midland Road	All Way Stop	B	13.7	C	22.1
25	SR 30/Noel C. Conaway Road at Midland Road	Minor Street Stop	F	327.9	D	28.6
26	SR 30 at Hodgeville Road	Minor Street Stop	F	360.1	F	69
27	SR 30 at Kolic Helmey Road	Minor Street Stop	F	201.1	F	57.5
28	Blue Jay Road at Hodgeville Road	Minor Street Stop	C	20	D	30.7
29	Hodgeville Road at Goshen Road	Minor Street Stop	E	45.1	E	46.7
30	Hodgeville at Kolic Helmey Road	Minor Street Stop	F	67.6	E	43.3
31	Old Augusta Road/Fort Howard Road at Fort Howard Road	Minor Street Stop	C	15.5	C	19.8
32	SR 21 at SR 21/Old Tusculum Road	Traffic Signal	A	7.2	A	7.7
33	SR 21 at SR 119	Traffic Signal	B	15.6	B	14.2
34	SR 21 at McCall Road	Minor Street Stop	C	19.5	F	106
35	SR 21 at Laurel Street	Traffic Signal	C	24.9	C	21.3
36	SR 21 at SR 275/Ebenezer Road	Traffic Signal	A	8.1	B	13.3
37	SR 21 at Ninth Street	Traffic Signal	B	13.5	B	17.2
38	SR 21 at Fort Howard Road	Traffic Signal	B	14.4	B	19
39	SR 21 at Prosperity Drive/Walmart Access	Traffic Signal	A	4.2	B	10.9
40	SR 21 at Kroger/Goody's Access	Traffic Signal	A	4.4	A	8.3
41	SR 21 at Towne Park Drive	Traffic Signal	A	7.7	A	8.7
42	SR 21 at Westwood Drive/Silver Lake Drive	Traffic Signal	A	6.8	B	13.8
43	SR 21 at McCall Road	Traffic Signal	B	15.3	B	16.9
44	SR 21 SB at Goshen Road	Traffic Signal	B	14.9	C	32.6
45	SR 21 NB at Goshen Road	Traffic Signal	B	15.8	C	34.6
46	SR 21 at Old Augusta Road	Traffic Signal	C	22.2	B	13.5
47	SR 17 at SR 30	Traffic Signal	F	83.1	C	28.4
48	SR 21 at 4th Street	Minor Street Stop	C	24.4	F	67.5
49	Stillwell Road at Long Bridge Road	Minor Street Stop	B	11.6	B	12.5

*** *Indicates a delay greater than 500 seconds*

Figure 2-15: Existing Peak Hour Level of Service



FORECAST CONDITIONS

Under 2050 No-build conditions, many intersections in the county operate significantly worse than under existing conditions. Frequently, minor street stop control at study intersections provides sufficient capacity for current traffic volumes but is unable to accommodate the high rate of projected growth in transportation demand. In addition, the projected growth results in higher through volumes along SR 21 than the current infrastructure can accommodate, leading to frequent intersection failures throughout the corridor.

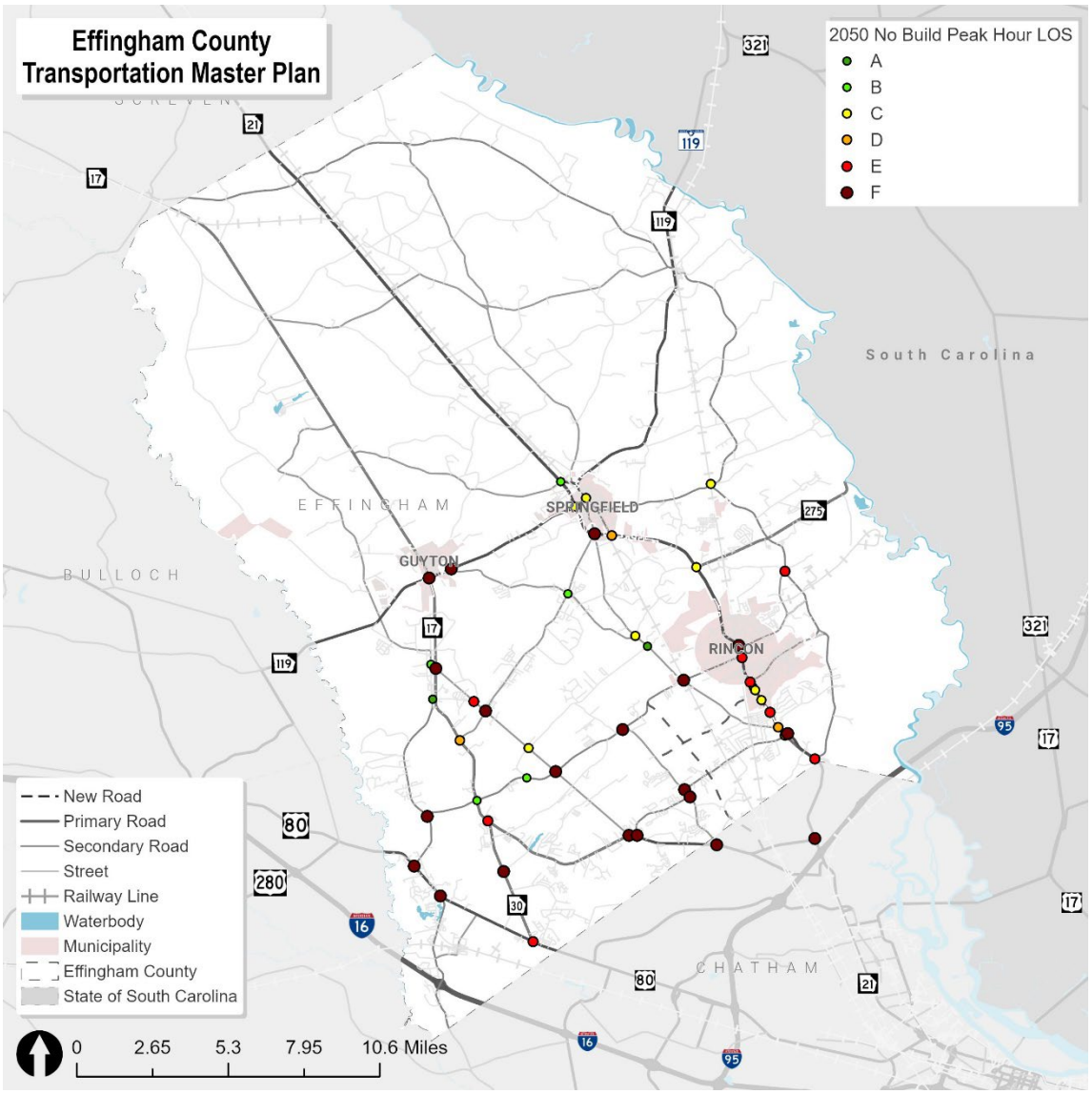
Table 2-9: 2050 No-Build Level of Service and Delay

Map ID	Intersection	Control	2050 No-build Conditions			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	SR 17 at SR 119/Springfield Avenue	Roundabout	B	14.7	F	50.2
2	SR 119 at Little McCall Road	Minor Street Stop	F	***	F	87.4
3	SR 119/Laurel Street at SR 119/Madison Street	Traffic Signal	C	28.9	C	23.2
4	McCall Road at Little McCall Road	Minor Street Stop	C	16.2	B	14.8
5	McCall Road at Low Ground Road	Minor Street Stop	A	0	A	0
6	McCall Road at Blue Jay Road/Blandford Road	Minor Street Stop	F	***	F	559
7	McCall Road at Courthouse Road	Minor Street Stop	C	15	D	27.5
8	Courthouse Road at Little McCall Road	All Way Stop	B	12.7	B	14.7
9	US 80 at SR 30	Traffic Signal	E	65.2	E	72.3
10	US 80/SR 26 at Old River Road	Minor Street Stop	F	172.3	F	***
11	US 80 at Sand Hill Road	Minor Street Stop	F	***	F	***
13	Sand Hill Road at Marlow Road	All Way Stop	A	9.6	A	8.7
14	Central Avenue at Midland Road	Minor Street Stop	A	9.3	B	10
14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Minor Street Stop	F	***	F	289.3
15	SR 17 at Midland Road	Minor Street Stop	D	32.2	F	111.6
16	SR 17 at Courthouse Road	Minor Street Stop	D	27.8	C	20.6
17	SR 17 at Blue Jay Road	Roundabout	B	11.4	B	10.8
18	SR 17 at SR 30	Minor Street Stop	C	15.4	E	41
19	SR 17 at Marlow Road	Minor Street Stop	D	25.5	E	47.5
20	SR 17 at Jabez Jones Road	Minor Street Stop	F	***	F	143
21	Blue Jay Road at Low Ground Road	Minor Street Stop	B	11	B	10.7
22	Midland Road at Courthouse Road	Minor Street Stop	F	241.8	F	195.1
23	Midland Road at Low Ground Road	Minor Street Stop	C	18	C	20.3
24	Blue Jay Road at Midland Road	All Way Stop	F	55.4	F	150.7
25	SR 30/Noel C. Conaway Road at Midland Road	Minor Street Stop	F	***	F	273.6
26	SR 30 at Hodgeville Road	Minor Street Stop	F	***	F	***
27	SR 30 at Kolic Helmey Road	Minor Street Stop	F	***	F	***
28	Blue Jay Road at Hodgeville Road	Minor Street Stop	F	124.2	F	351.6
29	Hodgeville Road at Goshen Road	Minor Street Stop	F	483	F	467.8
30	Hodgeville at Kolic Helmey Road	Minor Street Stop	F	***	F	***
31	Old Augusta Road/Fort Howard Road at Fort Howard Road	Minor Street Stop	C	24.9	E	49.7
32	SR 21 at SR 21/Old Tusculum Road	Traffic Signal	B	13.5	B	14.6
33	SR 21 at SR 119	Traffic Signal	C	23.1	C	22.7
34	SR 21 at McCall Road	Minor Street Stop	F	82.5	F	***
35	SR 21 at Laurel Street	Traffic Signal	D	35.2	D	35.5
36	SR 21 at SR 275/Ebenezer Road	Traffic Signal	B	13	C	27.3
37	SR 21 at Ninth Street	Traffic Signal	C	29.8	E	55.8
38	SR 21 at Fort Howard Road	Traffic Signal	C	22.1	E	61.4
39	SR 21 at Prosperity Drive/Walmart Access	Traffic Signal	A	5.4	C	24.3
40	SR 21 at Kroger/Goody's Access	Traffic Signal	A	9	B	16.1

Map ID	Intersection	Control	2050 No-build Conditions			
			AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
41	SR 21 at Towne Park Drive	Traffic Signal	B	11.1	C	33.2
42	SR 21 at Westwood Drive/Silver Lake Drive	Traffic Signal	B	12.5	E	59
43	SR 21 at McCall Road	Traffic Signal	C	32.9	D	37.9
44	SR 21 SB at Goshen Road	Traffic Signal	C	29.9	D	42.2
45	SR 21 NB at Goshen Road	Traffic Signal	C	30.4	F	212.4
46	SR 21 at Old Augusta Road	Traffic Signal	E	67.5	D	54.4
47	SR 21 at SR 30	Traffic Signal	F	228	F	123.1
48	SR 21 at 4th Street	Minor Street Stop	F	151.3	F	***
49	Stillwell Road at Long Bridge Road	Minor Street Stop	C	15.4	C	19.8

*** *Indicates a delay greater than 500 seconds*

Figure 2-16: 2050 No-Build Peak Hour Level of Service



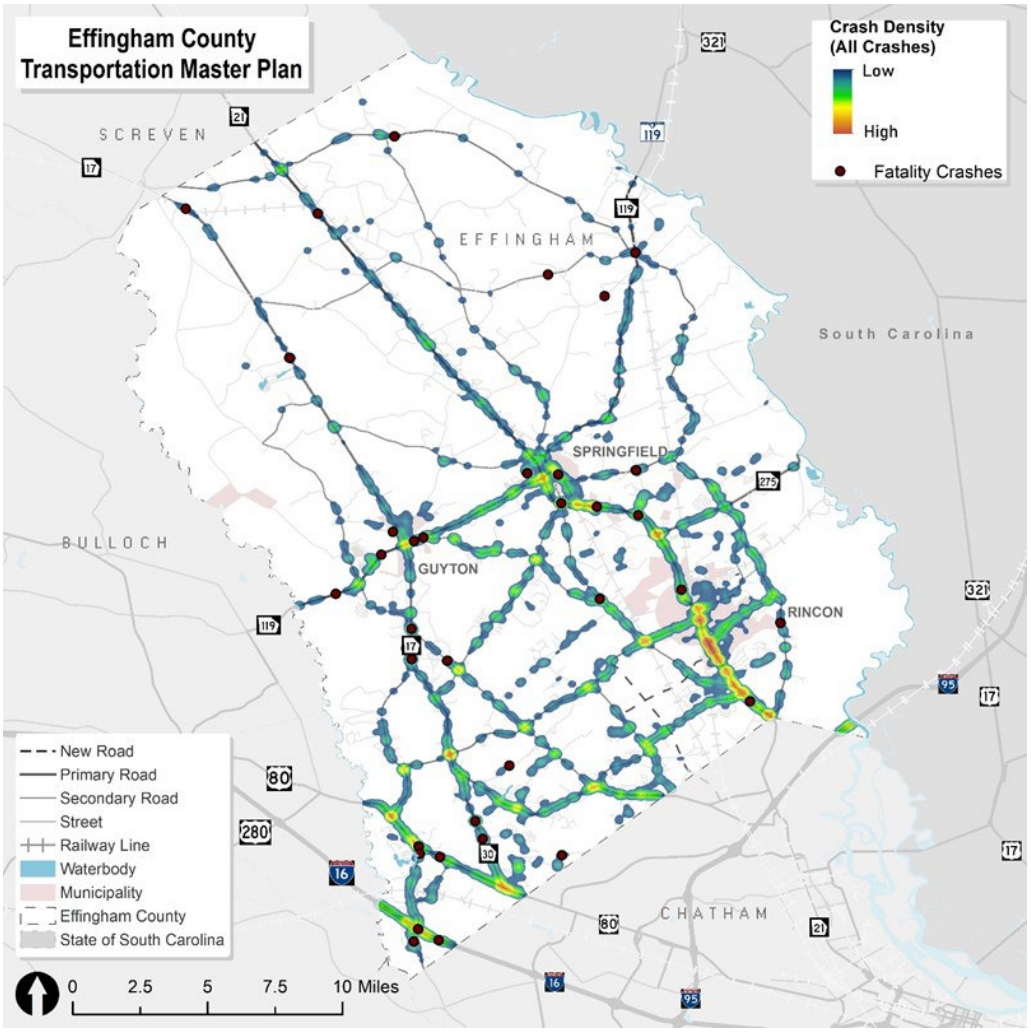
SAFETY ANALYSIS

Crash history within the county was analyzed to identify high crash locations which may indicate potential deficiencies in the transportation network regarding safety. This process included both geospatial and detailed data analysis elements. The geospatial methods included crash intensity and crash rate analysis, evaluating where crashes in the county are occurring. The aspect analysis included a more thorough examination of manner, severity, mode, and time of crashes within the county. All crash analysis utilized GDOT Numetric data for the years 2018-2022. All methods of analysis included a focus on KSI crashes. KSI crashes are defined as involving fatalities or serious injuries. It is critical to evaluate these crashes separately as a higher priority should be placed on reducing KSI crash risk and trends, risk factors, and potential countermeasures may differ between the KSI crash and all crash datasets.

CRASH INTENSITY ANALYSIS

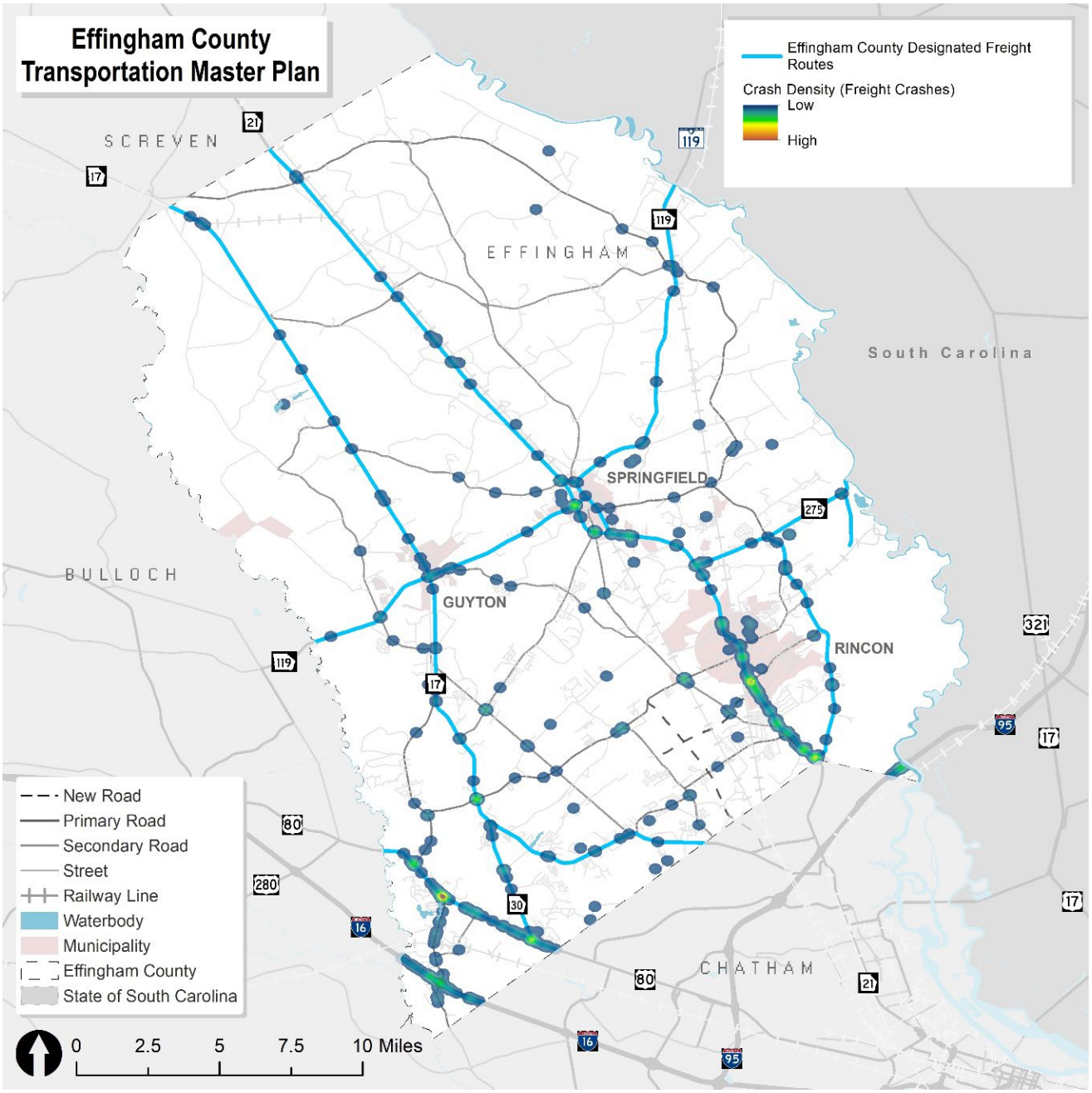
Crash intensity was evaluated where the highest number of crashes have occurred within the county by travel mode and crash severity. The primary methodology utilized for this analysis was to generate various heatmap using a geospatial function to calculate which areas experienced the highest frequency of crashes. Heatmaps were prepared for all crash, freight crash, and KSI crash datasets. However, fatality and active mode crashes occurred with a low frequency and were evaluated by location of individual crashes. Crash intensity maps are shown in Figure 6, Figure 7, Figure 2-19, and Figure 2-20.

Figure 2-17: Crash Intensity – Heatmap (All Crashes)) with Fatality Locations



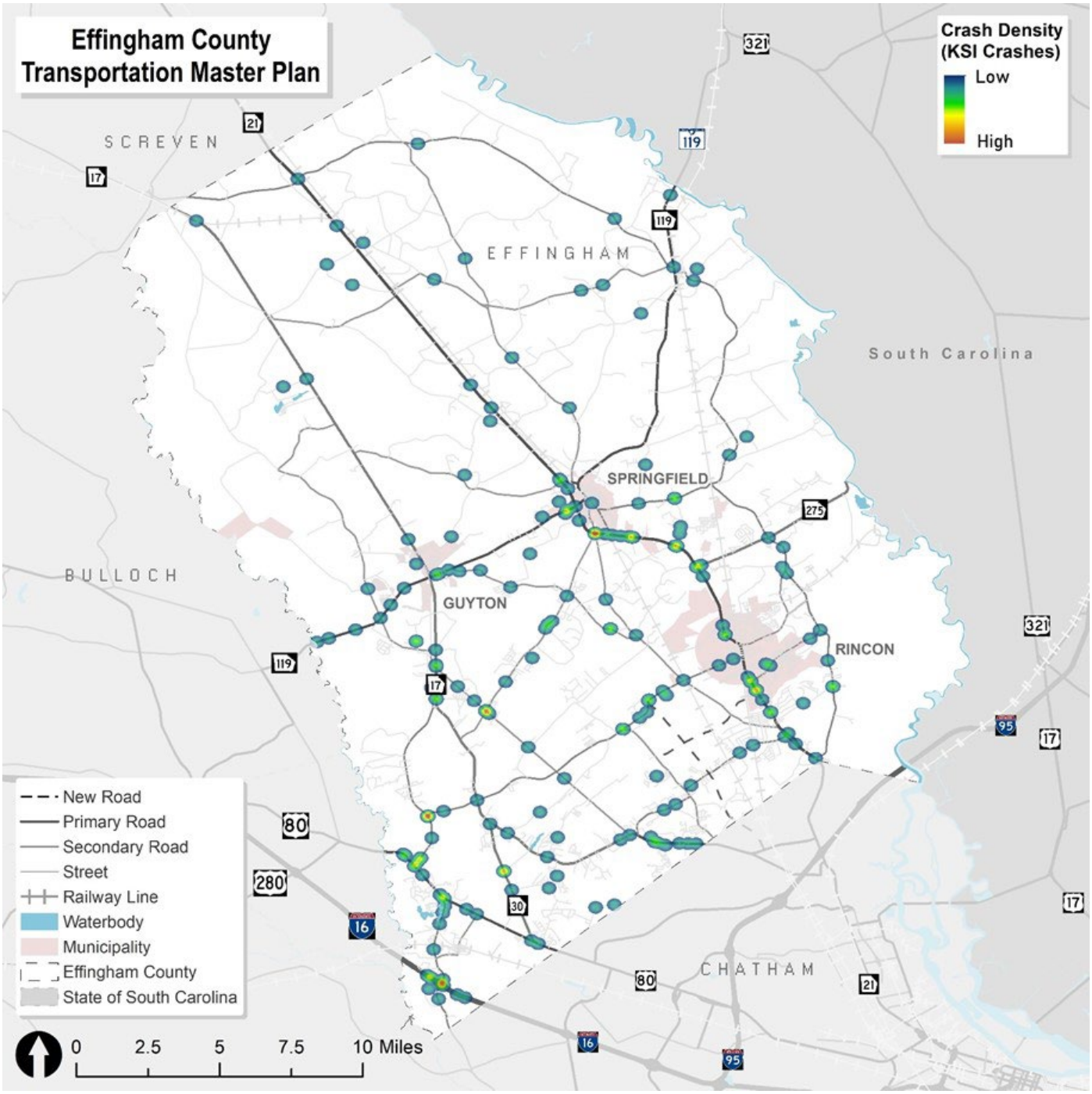
Crash intensity for all county crashes is highest along major thoroughfare roadways such as SR 21 and US 80, as well as within more developed parts of the county. This is in line with expectations, as traffic volume is generally positively correlated with the number of crashes. However, fatality crashes are more distributed throughout the roadway network, occurring along low volume roadways in addition to the state routes, including along roads in the more rural north of the county. Fatality crashes are not clustered at major intersections in the same way as the general crash dataset. Several factors can lead to this discrepancy including higher driver speeds and design deficiencies on low volume roads.

Figure 2-18: Crash Intensity – Heatmap of Freight Crashes



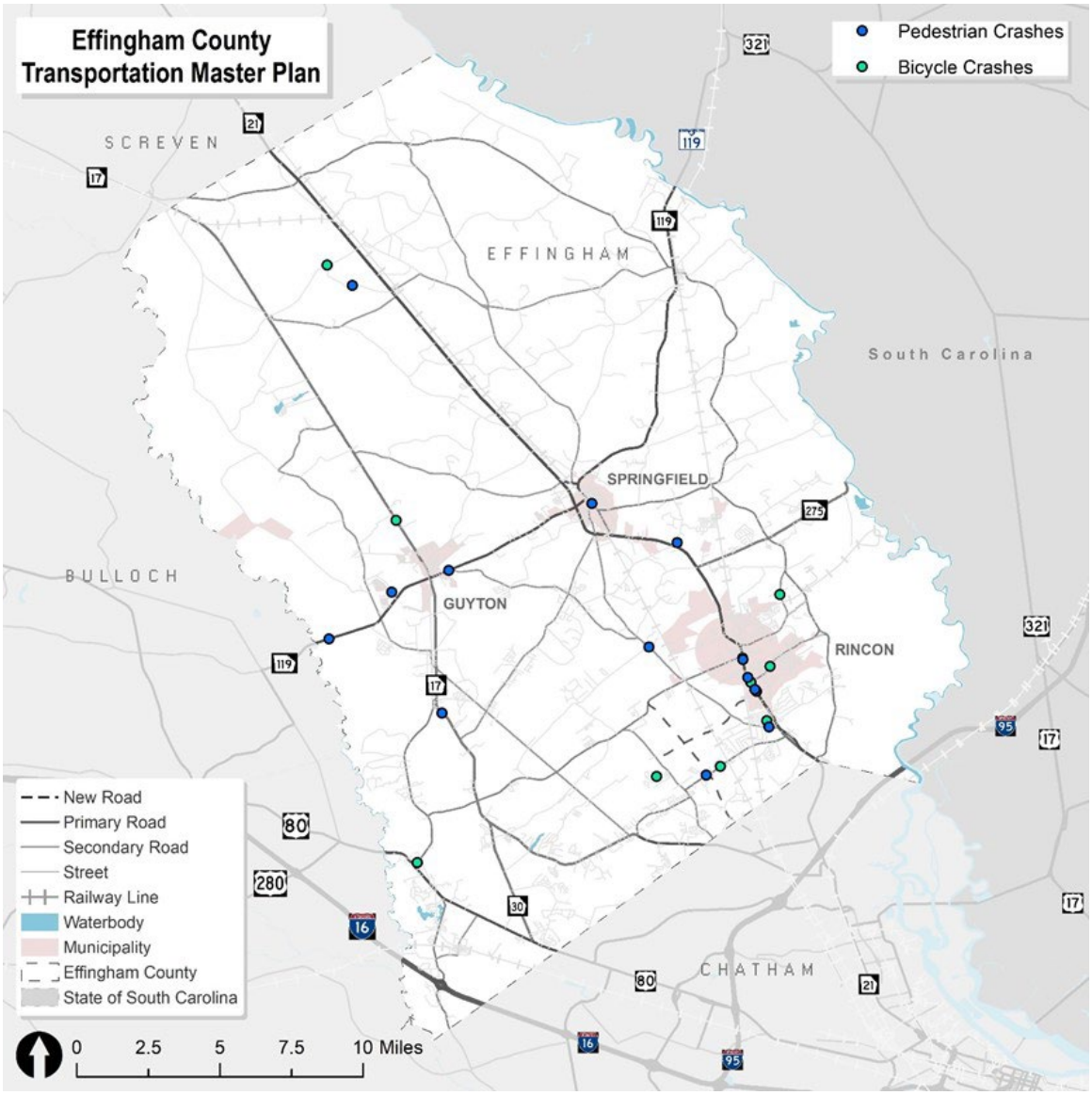
Freight crashes throughout the county tend to occur along the county freight network, including state routes, Old Augusta Road, and Old Augusta Central Road with a particular concentration at the intersection of US 80 at Old River Road. This is a natural result of freight vehicles being restricted to these roadways. However, the presence of freight crashes along local streets indicates that some freight drivers are operating outside of the freight network.

Figure 2-19: Crash Intensity – Heatmap of Fatality and Serious Injury (KSI) Crashes



KSI crashes, while occurring more frequently along high-volume state routes, are also distributed along the local street network. High intensity of KSI crashes appears to primarily occur at intersections, though not necessarily at intersections involving two major roadways. This could potentially indicate design deficiencies at these locations such as Blue Jay Rd at Sand Hill Rd, which is skewed, and lacks turn lanes despite the relatively high turning volumes.

Figure 2-20: Crash Intensity – Heatmap of Active Mode Crashes



Active Mode crashes primarily occurred within developed areas such as the city of Rincon, although several were recorded in relatively undeveloped locations. A major factor leading to active mode crashes is lack of appropriate facilities such as sidewalk, pedestrian crossings, lighting, and/or bicycle lanes in locations with active mode travel demand.

Crash Rate Analysis

The crash rate analysis evaluated the frequency of crashes at roadway segments and intersections relative to traffic volumes. Typically, crash intensity tends to be highest at locations with higher traffic volumes. However, crash rate analysis identifies locations that have experienced more crashes than would be expected for the amount of traffic at this location. These are locations where a traveler is more likely to experience a crash and may indicate potential for safety improvement projects. Crash rate analysis was performed by using GDOT Numetric data from 2018-2022 and GDOT Roadway Inventory AADT data from 2022. Rates were calculated as follows:

Intersections: Crash Rate = (Number of Crashes)/(Million Entering Vehicles)
Roadway Segments: Crash Rate = (Number of Crashes)/(100 Million Vehicle Miles Travelled)

The results of the crash rate analysis for both all crashes and KSI crashes throughout the county are presented in Figure 2-21, Figure 2-22, Figure 2-23, Figure 2-23, and Figure 2-24. Intersections and segments with the highest rate of fatality and serious injury (KSI) crashes were identified and presented in Table 2-10 and Table 2-11.

Figure 2-21: Roadway Segment Crash Rates

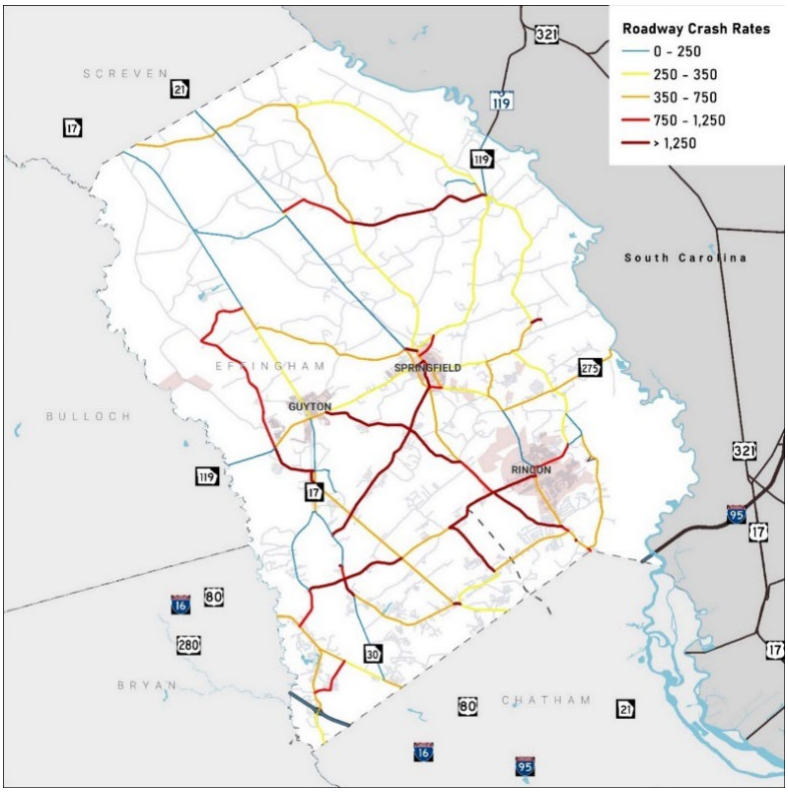
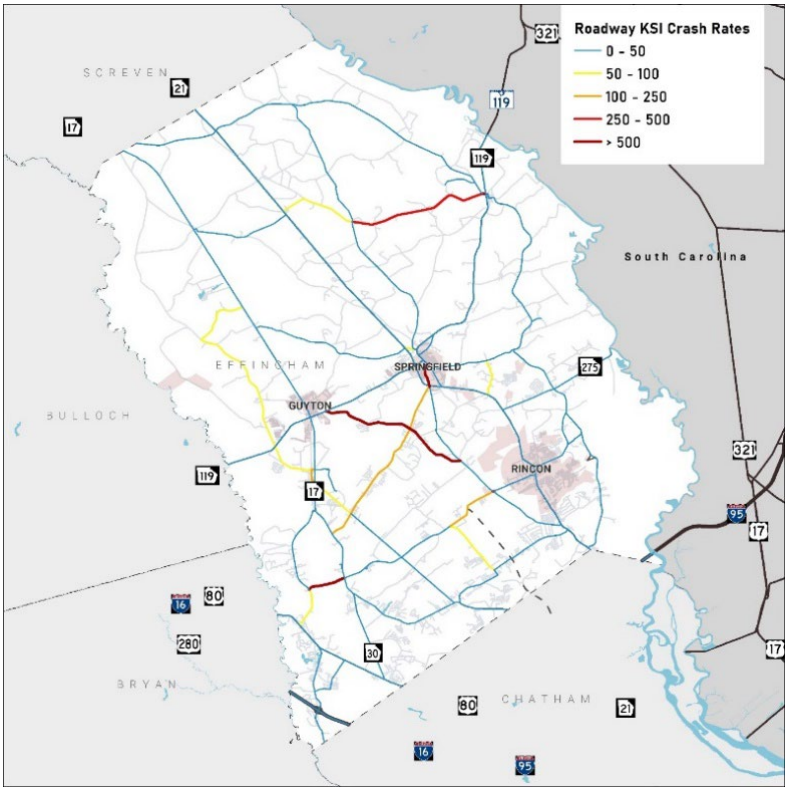


Figure 2-22: Roadway Segment KSI Crash Rates



Roadway segment crash rate and KSI crash rate analysis shows higher frequency of crashes relative to traffic volumes on local streets compared to crash intensity analysis. Factors contributing to higher crash rates include roadway deficiencies, vehicle speeding along low volume roadways, and high intersection density. In particular, shorter roadway segments tend to have high crash rates due to intersection density, which is not necessarily reflective of infrastructure deficiencies.

Figure 2-23: Intersection Crash Rates

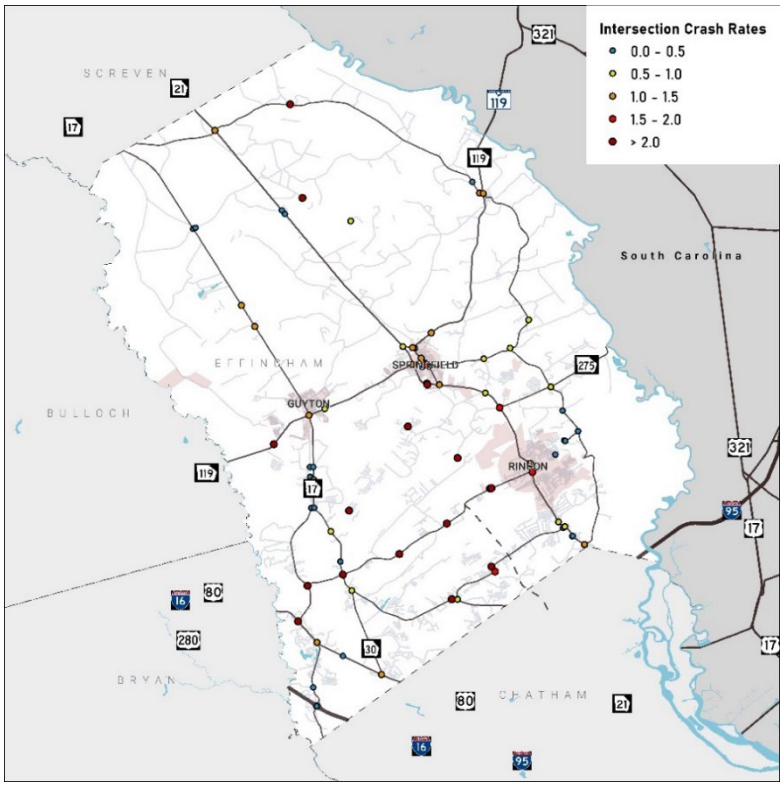
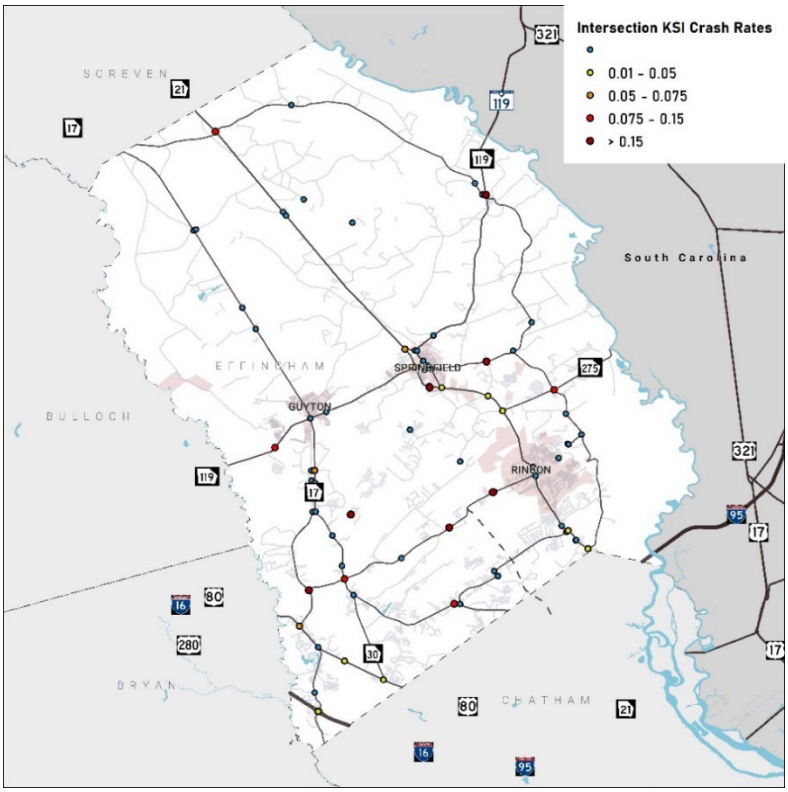


Figure 2-24: Intersection KSI Crash Rates



Intersection segment crash rate and KSI crash rate analysis results indicate high crash rate locations along both high volume and low volume roadways. Factors contributing to higher crash rates include roadway deficiencies and driver behavior. Driver behavior can be influenced by roadway characteristics, for example a driver experiencing long delays at an intersection may be more likely to attempt a turning maneuver without sufficient headway, increasing crash risk. In particular, shorter roadway segments tend to have high crash rates due to intersection density, which is not necessarily reflective of infrastructure deficiencies.

Table 2-10: Top 15 Roadway Segments by KSI Crash Rate

Road Name	KSI Crash Rate	KSI Crash Rate Rank
Little McCall Rd (Hwy 119 to Courthouse Rd)	649.9	1
McCall Road (N Laurel St to Courthouse Rd)	602.5	2
Blue Jay Road (Sand hill to Hwy 17)	596.4	3
Little McCall Rd (courthouse Rd to McCall Rd)	595.5	4
Clyo Kildare Rd (Clyo Shawnee Rd to Hwy 119)	517.6	5
Clyo Shawnee Rd (Springfield Rd Clyo Kildare Rd)	279.6	6
Courthouse Rd (Hwy 17 to Midland Rd)	222.7	7
Honey Ridge Rd (Central Ave to Hwy 17)	201	8
Central Ave (Hwy 17 to Honey Ridge Rd)	192.6	9
Courthouse Rd (Midland Rd to Little McCall Rd)	185.3	10
Blue Jay Rd (Hodgeville Rd to McCall Rd)	175.8	11
Courthouse Rd (Little McCall Rd to Springfield Byp)	175.6	12
Old Dixie Hwy (Hwy 21 to Springfield Rd)	89.2	13
Honey Ridge Rd (Hwy 19 to Central Ave)	75.5	14
Old Tusculum Rd (Hwy 21 to Old Dixie Rd)	69.2	15

Table 2-11: Top 15 Intersections by KSI Crash Rate

Location	KSI Crash Rate	KSI Crash Rate Rank	Study Intersection ID
Midland Road and Courthouse Rd	0.46	1	26
Sand Hill Rd at Blue Jay Rd	0.46	2	25
Blue Jay Rd at Hodgeville Rd	0.45	3	32
Stillwell Rd at Berry Rahn Rd	0.27	4	N/A
Blue Jay Rd at McCall Rd	0.24	5	38
GA Hwy 119 at Clyo Kildare Rd	0.17	6	N/A
Blue Jay Road at Ga Hwy 17 S	0.11	7	4
Hwy 119 S at Old Louisville Rd	0.11	8	N/A
Ga Hwy 21 N at Oliver Kildare Rd	0.10	9	N/A
Ebenezer Rd at Long Bridge Rd	0.08	10	N/A
Noel C Conaway Rd at Midland Rd	0.07	11	31
US Hwy 80 E at Sand Hill Rd	0.07	12	27
GA Hwy 21 N at Old Tusculum Rd	0.06	13	N/A
GA Hwy 17 at Honey Ridge Rd	0.06	14	N/A
US Hwy 80 at Meldrim Rd	0.05	15	N/A

Detailed Aspect Analysis

Detailed aspect analysis was an evaluation of selecting features of all crashes within the county during the analysis period. (2018-2022). The results of this analysis can be used to determine general trends of crashes throughout the county to consider when developing safety strategies. The detailed aspect analysis is summarized in the tables and figures below:

Table 2-12: Crash Review for Effingham County, 2018-2022

Crash Type	K	A	B	C	O	Total	Percentage of Total Crashes
Angle (Other)	7	23	120	151	501	**802**	11.76%
Head On	4	17	44	41	154	**260**	3.81%
Left Angle Crash	2	22	106	155	341	**626**	9.18%
Not a Collision with Motor Vehicle	19	80	257	205	1,813	**2,374**	34.81%
Rear End	6	17	118	367	1,377	**1,885**	27.64%
Right Angle Crash	0	2	2	12	116	**132**	1.94%
Sideswipe-Opposite Direction	0	5	31	18	128	**182**	2.67%
Sideswipe-Same Direction	0	8	18	47	410	**483**	7.08%
Other/Unspecified	0	0	3	4	68	**75**	1.10%
Total	**38**	**174**	**699**	**1,000**	**4,908**	**6,819**	100.00%
Percentage of Total Crashes	0.56%	2.55%	10.25%	14.66%	71.98%	100.00%	
Pedestrian Crashes	2	3	2	4	4	**15**	0.22%
Bicycle Crashes	0	4	4	1	1	**10**	0.15%
Heavy Vehicle Crashes	8	16	47	79	348	**498**	7.30%

Table 2-13: Crash Light Conditions for Effingham County, 2018-2022

Lighting Conditions	K Fatality Crash	A Serious Injury Crash	B Visible Injury Crash	C Complaint Injury Crash	O Property Damage Only Crash	Total	Percentage of Total Crashes
Dark-Not Lighted	7	50	169	191	1,239	**1,656**	24.3%
Dusk	0	4	15	22	102	**143**	2.1%
Dawn	1	4	11	24	162	**202**	3.0%
Dark-Lighted	2	9	42	71	339	**463**	6.8%
Daylight	28	107	460	691	3,020	**4,306**	63.1%
Unknown	0	0	2	1	46	**49**	0.7%
Total	**38**	**174**	**699**	**1,000**	**4,908**	**6,819**	100.0%
Percentage of Total Crashes	0.6%	2.6%	10.3%	14.7%	72.0%	100.0%	

Figure 2-25: Crash Review for Effingham County, 2018-2022

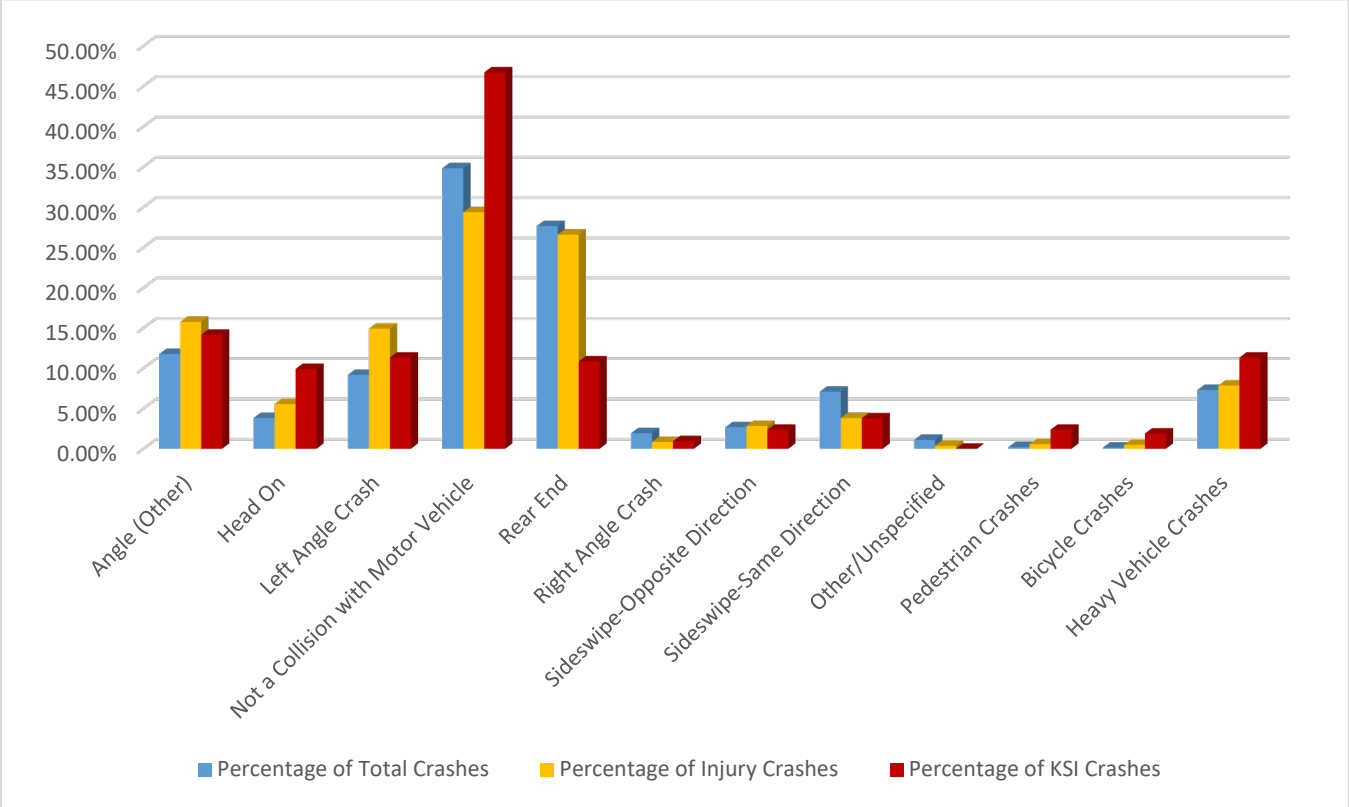
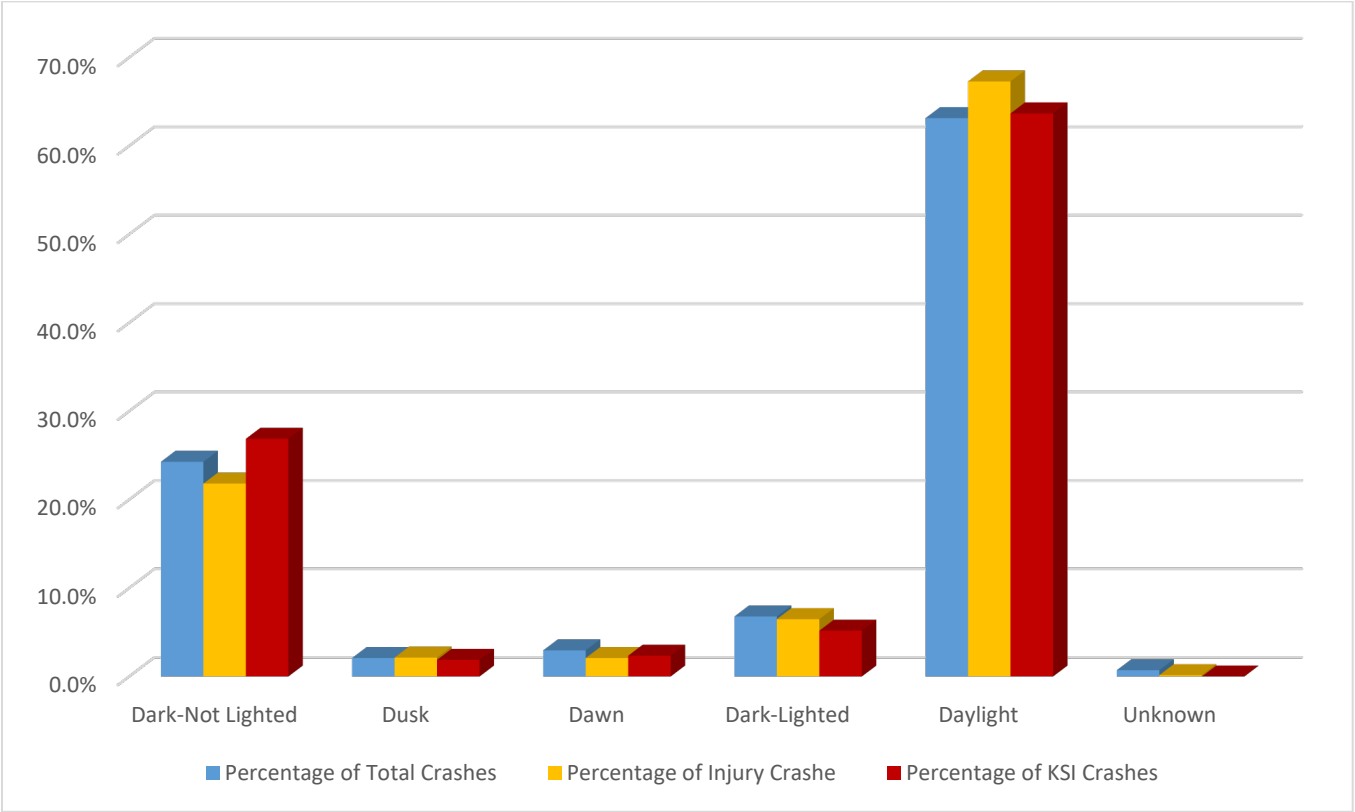


Figure 2-26: Crash Light Conditions for Effingham County, 2018-2022

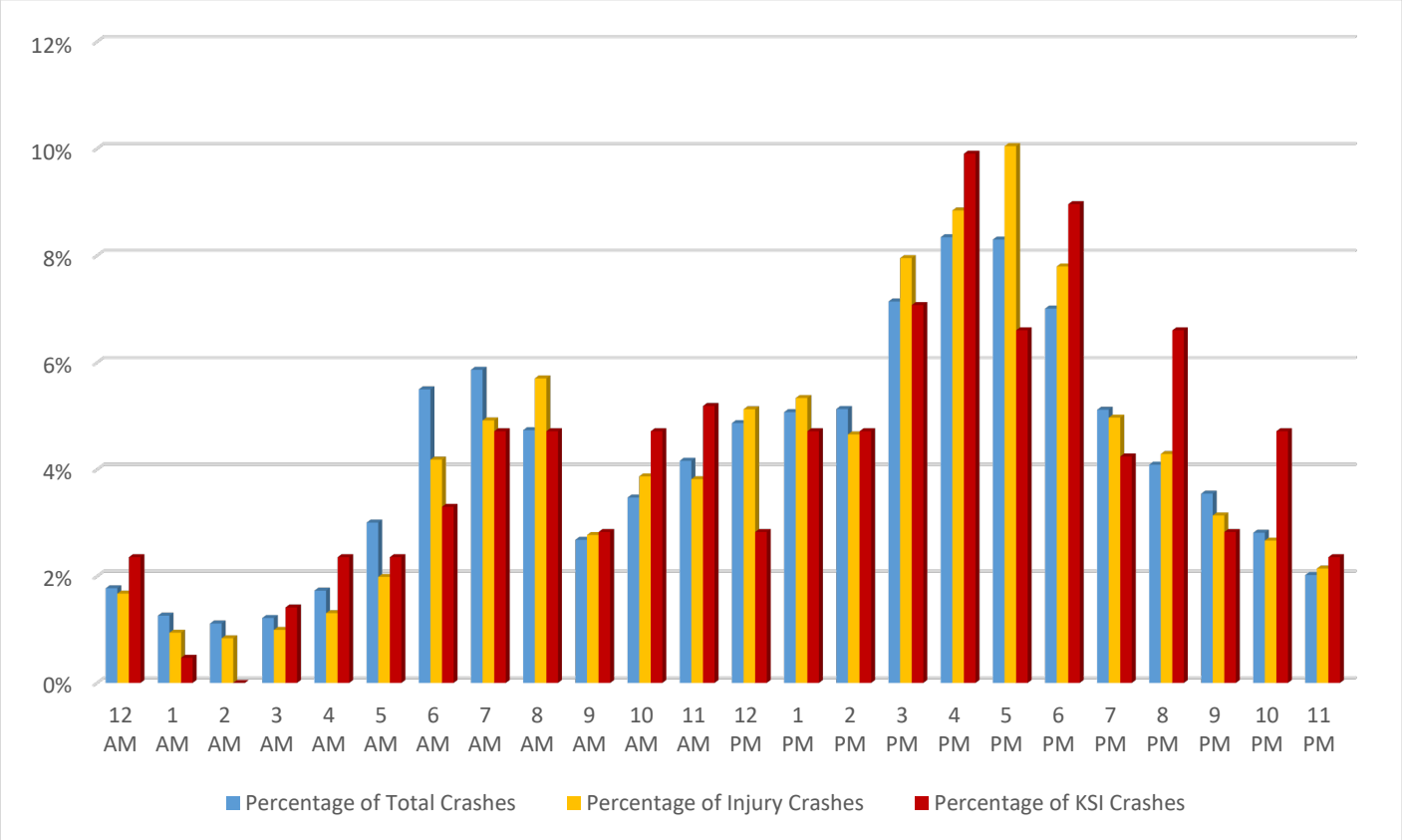


The most frequent manner of crash for all crash, injury crash, and KSI crash datasets was "Not a Collision with a Motor Vehicle." This crash type could involve vehicles running off the road, animal collisions, active mode crashes, or objects within the roadway. These crashes are more common in rural areas and have a high potential for injury as many forms of the collision type can involve high vehicle speeds or vulnerable users. The majority of crashes occur during daylight, concentrated near the AM and PM peak travel periods.

Table 2-14: Crashes by Time of Day for Effingham County, 2018-2022

Time of Day	K	A	B	C	O	Total	Percentage of Total Crashes
12 AM	1	4	14	13	89	**121**	1.8%
1 AM	0	1	11	6	68	**86**	1.3%
2 AM	0	0	9	7	60	**76**	1.1%
3 AM	0	3	8	8	64	**83**	1.2%
4 AM	3	2	12	8	93	**118**	1.7%
5 AM	0	5	13	20	167	**205**	3.0%
6 AM	1	6	26	47	295	**375**	5.5%
7 AM	3	7	34	50	306	**400**	5.9%
8 AM	4	6	34	65	214	**323**	4.7%
9 AM	1	5	18	29	130	**183**	2.7%
10 AM	1	9	24	40	163	**237**	3.5%
11 AM	3	8	23	39	211	**284**	4.2%
12 PM	1	5	32	60	234	**332**	4.9%
1 PM	2	8	38	54	244	**346**	5.1%
2 PM	2	8	35	44	261	**350**	5.1%
3 PM	3	12	61	76	335	**487**	7.1%
4 PM	0	21	66	82	400	**569**	8.3%
5 PM	2	12	68	110	374	**566**	8.3%
6 PM	4	15	49	81	329	**478**	7.0%
7 PM	3	6	31	55	254	**349**	5.1%
8 PM	0	14	29	39	197	**279**	4.1%
9 PM	1	5	21	33	182	**242**	3.5%
10 PM	1	9	22	19	141	**192**	2.8%
11 PM	2	3	21	15	97	**138**	2.0%
Total	**38**	**174**	**699**	**1,000**	**4,908**	**6,819**	100.0%
Percentage of Total Crashes	0.6%	2.6%	10.3%	14.7%	72.0%	100.0%	

Figure 2-27: Crashes by Time of Day for Effingham County, 2018-2022



MULTIMODAL TRAVEL NEEDS

Analysis of the multimodal transportation facilities within the county was performed and included truck/freight, bicycle/pedestrian, and transit needs.

TRUCK/FREIGHT

Given its proximity to the Port of Savannah and emerging industrial developments, such as the Hyundai Motor Group Metaplant America Plant in neighboring Bryan County, Effingham County is well positioned for an increased demand for industrial development and related truck traffic.

This analysis will document the freight network, truck travel characteristics, and existing and projected land uses to identify freight needs throughout the county.

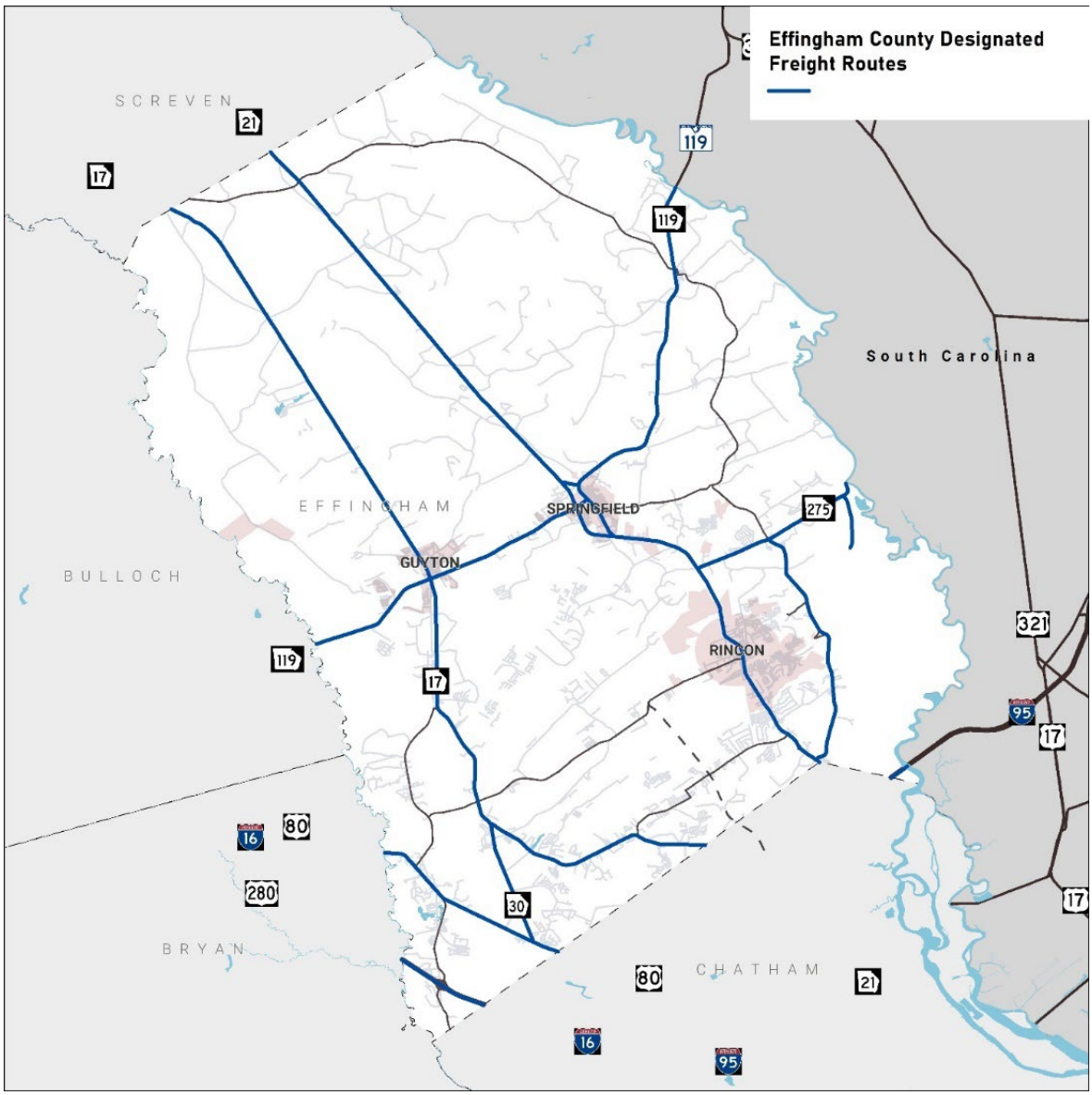
FREIGHT NETWORK CHARACTERISTICS

Pond will examine truck travel patterns and truck volumes present currently and will examine the potential changes with the implementation of planned development and new planned connections including Effingham Parkway and connecting roads, such as East-West Connector and Blue Jay Road, as well as connections and improvements included in the Coastal Empire Plan.

Designated Truck Routes

Truck routes are defined in Section 74-8 of the Effingham Code of Ordinances. Per that ordinance, the following roadways are listed below and shown on the Designated Freight Routes, Figure 2-28.

Figure 2-28: Designated Freight Routes



I-95 - A six-lane interstate facility connecting several major metropolitan areas along the Eastern United States. It should be noted that the facility only skirts the County boundaries. As such, there is no direct access to the facility within the County. The only access to the facility for Effingham County businesses is via SR 21 in Chatham County. This roadway is also on the FHWA Primary Highway Freight Network.

I-16 – A four-lane interstate facility that connects Savannah to Macon and serves as the major roadway connection from the Port of Savannah to the Atlanta region (and other points north). The only access to this facility within the County is at the Old River Road interchange. Access to the facility is also available via the US 280 interchange in Bryan County.

US 80 – A two-lane minor arterial US highway, the facility serves as a parallel roadway to I-16 from Savannah to Macon. While only a small segment of the facility runs through Effingham County, it is reasonable to assume that the demand for trucks to connect to US 280 and access I-16 in Bryan County will increase.

SR 21 – A four-lane arterial (Principal Arterial south of Springfield and Minor Arterial north of Springfield), this facility serves as the primary north-south facility through the County. It is also characterized by wide lanes and a divided median throughout most of its length through Effingham, which are favorable to truck travel.

SR 119 – A two-lane minor arterial, this roadway serves as the primary east-west roadway through the central portion of the County as well as the cities of Guyton and Springfield.

SR 17 – A two-lane major collector running through the county's western portion. The facility runs parallel to SR 21 and primarily serves rural land uses.

SR 30 – A two-lane major collector from SR 17 to US 80 in the southern portion of Effingham. West of SR 17, the facility is classified as a minor arterial and serves primarily residential uses and South Effingham High School.

SR 275 – The portion of Ebenezer Road east of SR 21, this two-lane major collector primarily serves residential until its terminus at the Savannah River. However, the roadway serves as the connection to the Georgia Power McIntosh Plant from SR 21.

Old Augusta Road South – A two-lane major collector between SR 275 and SR 21, the facility serves several industrial uses, including the Georgia Pacific Savannah River Mill.

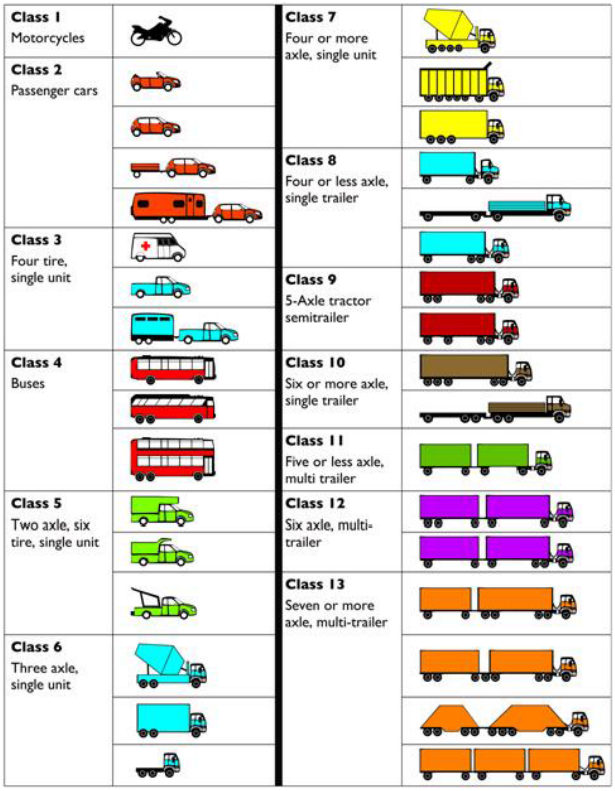
Old Augusta Central Road – A two-lane local roadway between SR 275 and the Georgia Power McIntosh Plant.

Truck Restrictions

Per Section 74-8, the definition of trucks pivots off the FHWA Vehicle Classifications shown in Figure 2-29. Per the ordinance, vehicle classes 6-13 are only permitted on the County's designated freight routes. Exceptions can be made for trucks going to and from:

- Deliveries with specific bills of lading on other roadways
- The carrier's terminal facilities physically located on other roadways
- A repair facility for service physically located on other roadways
- The driver's residence or business physically located on other roadways

Figure 2-29: FHWA 13 Vehicle Category Classification



Truck Travel

This section highlights truck traffic characteristics, specifically truck trips and levels of congestion along truck routes.

Truck Trips

In order to derive truck traffic volumes, the primary data source was the GDOT Traffic Analysis and Data Application (TADA). On freight routes without GDOT truck counting stations, the Replica database was utilized. Replica is a data source driven by mobile applications and historical traffic counts. Daily freight volumes are presented in Table 2-15 and Figure 10. As highlighted in the data:

- SR 21 is the most significant freight facility in the County with respect to local truck traffic. Not surprisingly, truck volumes are higher in the southern portions of the County.
- While they carry higher truck volumes, I-95 and I-16 have minimal impact on freight flows in the County.
- Truck volumes along SR 17, SR 119, SR 275, and Old Augusta Road range from approximately 500-1,000 per day. This represents a significant amount of truck traffic through primarily residential areas.

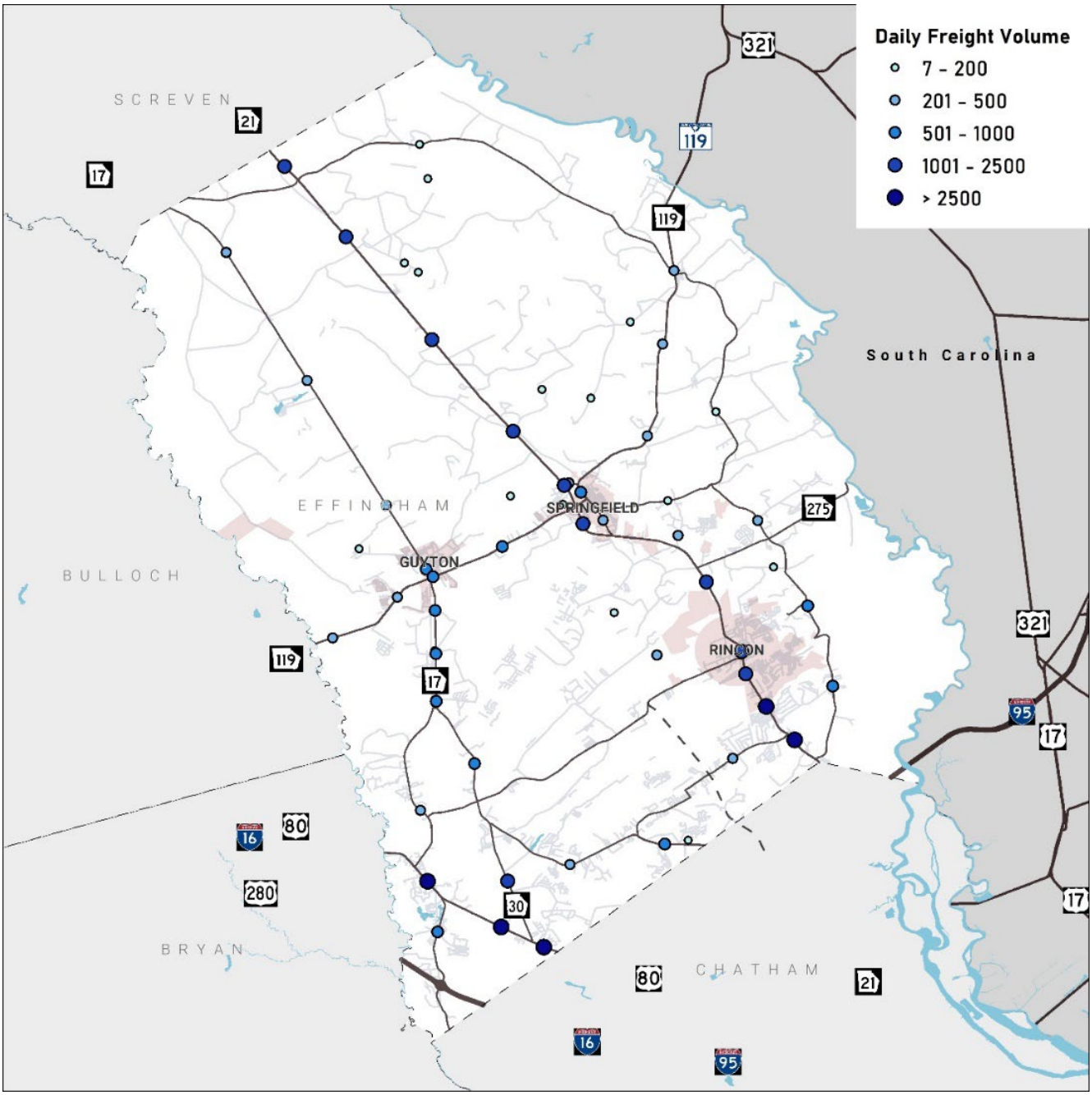
Table 2-15: Daily Freight Volumes

Truck Route Location	Truck AADT	Source
I-95*	13,049	GDOT
I-16	5,919	Replica
US 80 N/O SR 30	3,666	GDOT
US 80 E/O SR 17	3,538	GDOT
US 80 W/O SR 17	2,720	GDOT
SR 21 N/O Goshen Rd	3,016	GDOT
SR 21 S/O Goshen Rd	2,732	GDOT
SR 21 S/O Ebeneezer Rd	2,428	GDOT
SR 21 S/O SR 119	2,295	GDOT
SR 21 S/O Sterling Dr	2,190	GDOT

Truck Route Location	Truck AADT	Source
SR 21 N/O 9th St	2,078	GDOT
SR 21 S/O Springfield Egypt Rd	1,689	GDOT
SR 21 N/O Pearl Davis Rd	1,653	GDOT
SR 21 S/O Old Tusculum Rd	1,587	GDOT
SR 21 N/O Clyo Kildare Rd	1,569	GDOT
SR 21 N/O Ardmore Oaky Rd	1,545	GDOT
SR 17 N/O Roebling Rd	1,036	GDOT
SR 119 E/O SR 17	1,001	GDOT
SR 275	819	Replica
SR 30	550	GDOT
Old Augusta Road South	763	GDOT
Central Road	32	Replica

* - Count Station outside of Effingham County

Figure 2-30: Daily Freight Volumes



Level of Service (LOS)

Relieving congestion along truck routes is an important element of economic development and performance. The existing and future No-build intersection levels of service (LOS) are shown in Figures 2-31 and 2-32. With respect to local truck routes, the following intersections along truck routes are currently in need of improvement:

- US 80 at Old River Road
- US 80 at Old Darien Road
- SR 21 at McCall Road
- SR 21 at East Fourth Street in Rincon
- SR 119 at Little McCall Road
- SR 30 at Kolic Helmey Road
- SR 30 at Midland Road
- SR 30 at Jabez Jones Road

The following intersections are projected to need improvements to maintain an acceptable LOS:

- SR 21 at SR 119
- SR 21 at SR 275 (Ebenezer Road)
- SR 119 at SR 17

Figure 2-31: Existing Level of Service

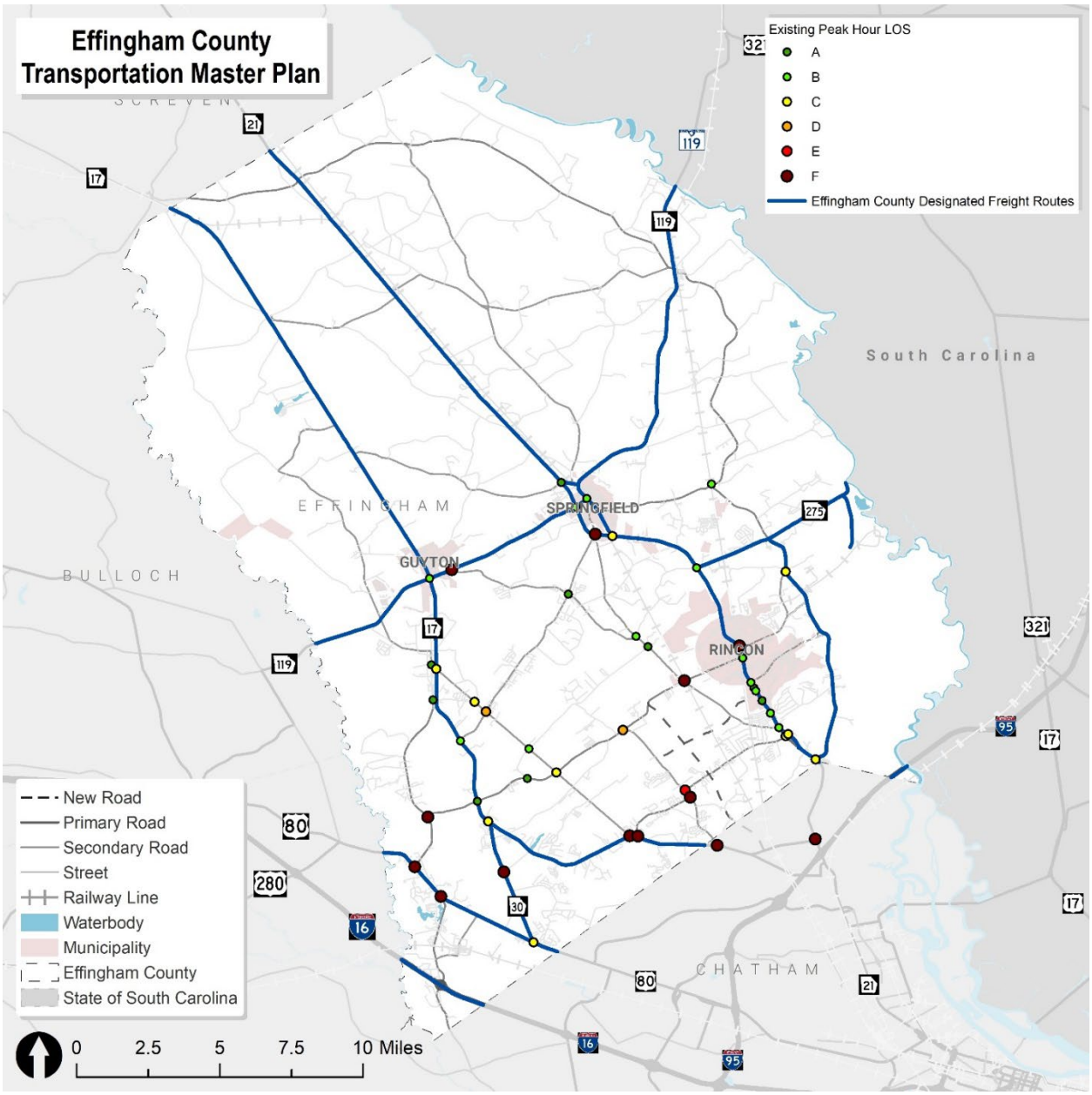
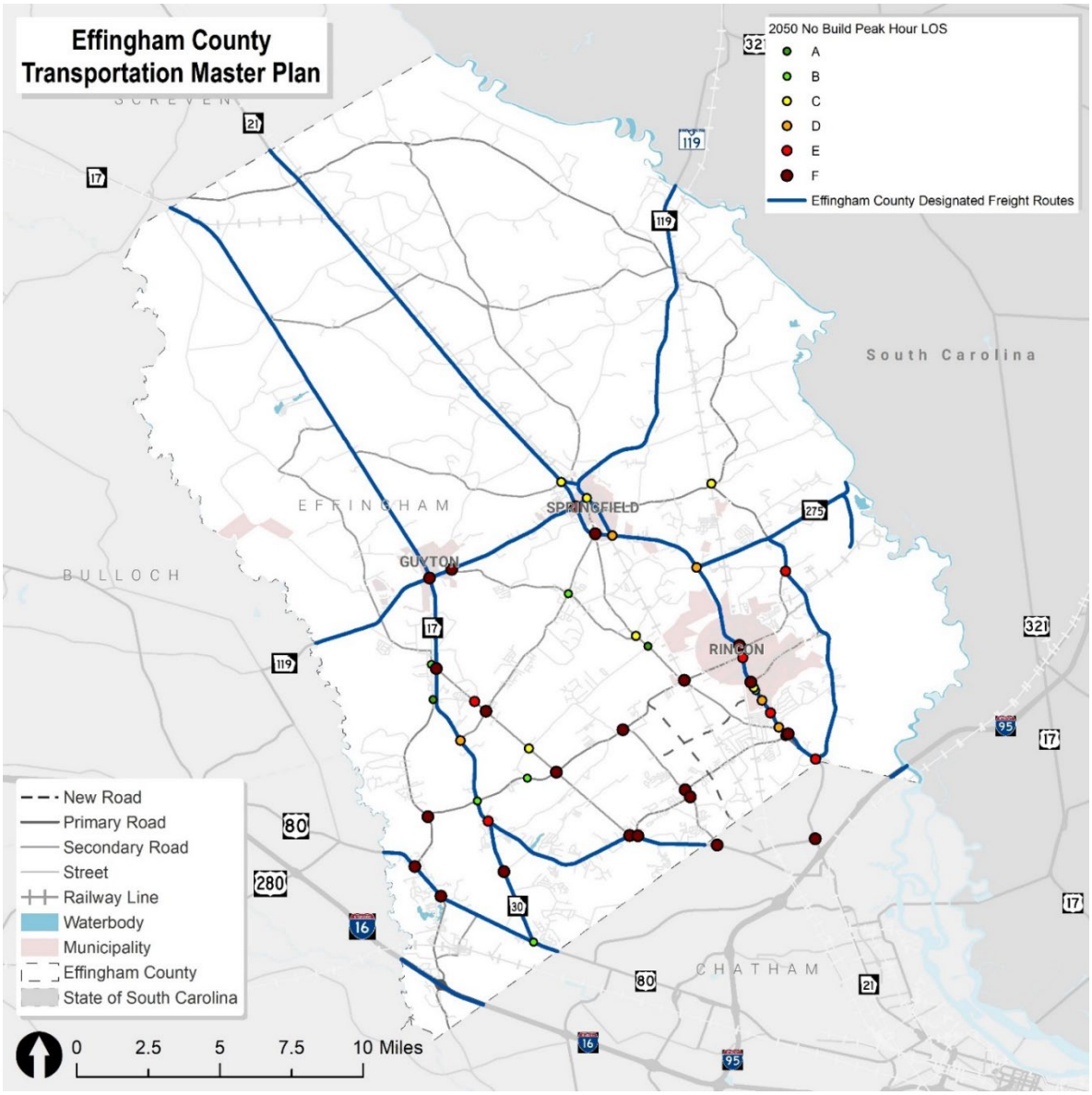


Figure 2-32: No-Build Level of Service



Rail Lines

The current and planned rail expansion at the Port of Savannah will continue to increase the demand for rail as a cost-efficient option for moving goods. As shown in Figure 2-33, the County is served primarily by Norfolk Southern and CSX rail lines, as described below:

- Norfolk Southern - A Class I rail line that runs north-south throughout most of the County and then veers west just south of the Screven County line. Norfolk Southern also operates a spur that connects the main line to Georgia Pacific and Georgia Power facilities.
- CSX – A Class I rail line that also runs north-south through the County with a spur line at the Svannah Gateway Industrial Hub.
- Georgia Central Railway – Owned by Genesee and Wyoming – This shortline railroad traverses the southern portion of the County through Meldrim.

There is also a portion of GDOT-owned railway that spurs into Screven County from the Norfolk Southern line in the northern portion of the County.

Freight-Related Land Uses

For the purposes of this analysis, the study team identified five primary industrial clusters for Effingham County. The boundaries of these clusters were defined by existing industrial uses and designations within the County's Future Land Use Map. They are shown in Figure 2-33 and are as follows:

Cluster 1- The area along Old Augusta Road that contains the Georgia Power McIntosh Plant, Georgia Pacific Savannah River Mill, and NFI logistics.

Cluster 2 - The area north of the Chatham County line that contains several industrial uses at the intersection of SR 21 and Old Augusta Road just north of the Chatham County line.

Cluster 3 - The area off McCall Road between the Norfolk Southern and CSX rail lines that contains the Savannah Gateway Industrial Hub and industrially zoned properties between the Norfolk Southern line and Hodgeville Road.

Cluster 4 - The area along Ebenezer Road between SR 21 and the CSX rail line that contains the Georgia Transformer Corporation, Halstead New England, and Vulcan Materials.

Cluster 5 – The area off south of US 80 along the County to River Road that extends south of I-16 to Old River Road. This area currently contains NFI Logistics, Merch Source, LLC Distribution Center, and Americold Logistics.

Based on a desktop survey of these clusters and use of the Effingham County GIS Interactive Map tool, the following characterizes the development potential for the industrial clusters identified above:

Cluster 1- The area does contain vacant properties between the Georgia Pacific and Georgia Power facilities. However, Nellie Road would need significant improvements to provide access to this area.

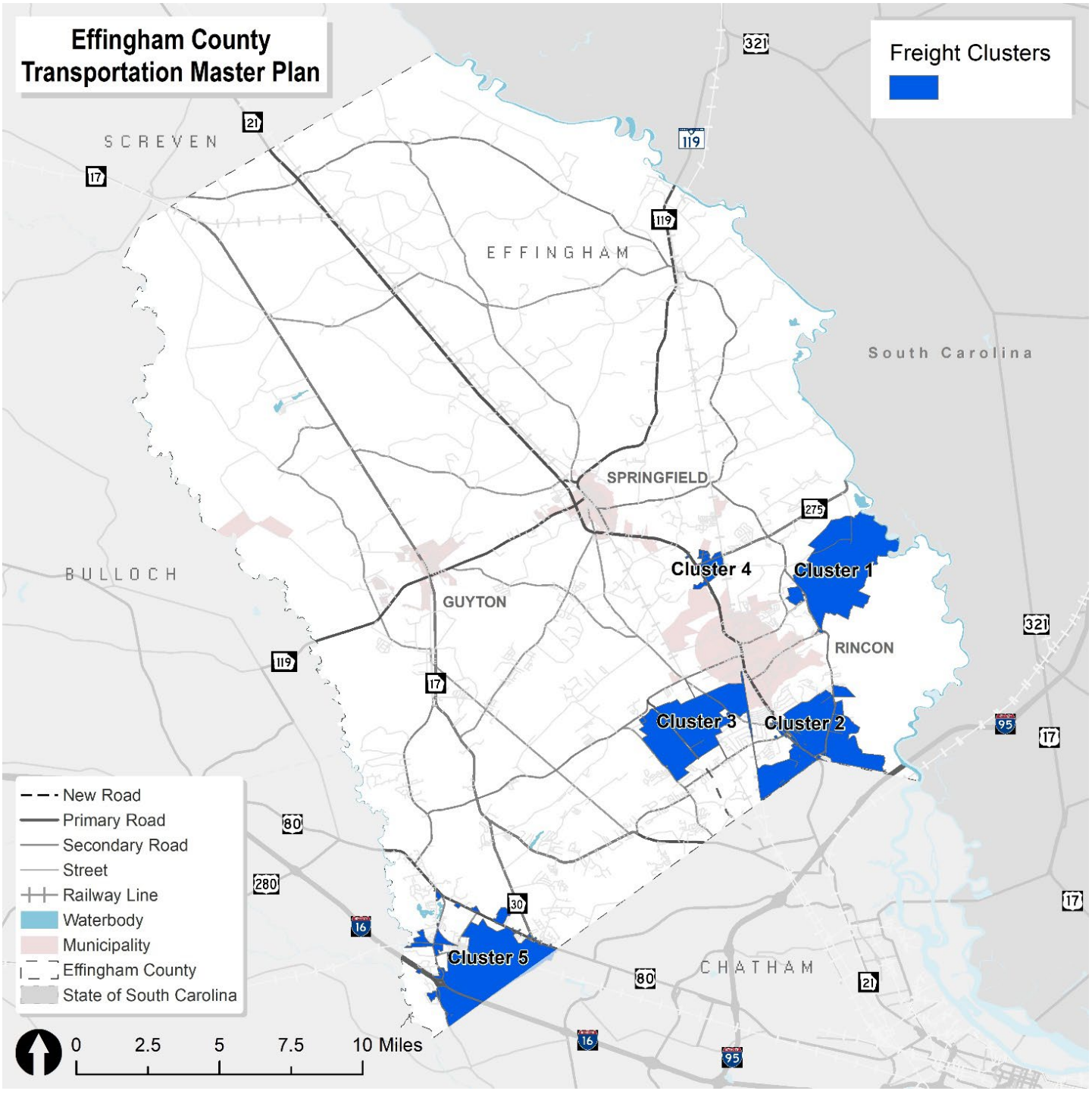
Cluster 2 – All of the developable land in these areas appears to be occupied with existing industrial uses.

Cluster 3— While some of this cluster is in a flood zone, it has a great deal of industrial development potential, with large tracts of vacant industrial properties between McCall Road and Hodgeville Road. Furthermore, the planned Effingham Parkway will provide better access to and from the Port, I-95 to the south, and I-16 via US 80.

Cluster 4—There is an opportunity for infill development among the existing industrial uses. Generally, warehouse and distribution uses generate much more truck traffic than manufacturing uses. Given its distance to I-95 and I-16, it is not as favorable for warehouse and distribution uses as other available industrial properties in the County.

Cluster 5 – While much of this area is in a floodplain (with the presence of the Little Ogeechee River), this area does contain his area has a great deal of available vacant industrial property that would logically be targeted for warehouse and distribution sites. This is particularly true for that area south of the Georgia Central rail line east of Old River Road.

Figure 2-33: Freight-Related Land Use



Recommended Freight-Related Actions

Based on the analysis within, the following actions are needed to address existing and potential freight movement:

- Designation of additional truck routes – Based on the existing truck traffic and potential freight development, the following roadways should be considered for local freight route designation.
    - Effingham Parkway
    - Old River Road
    - McCall Road – from Blue Jay Road to Gateway Parkway

- Freight-related roadway improvements:
    - Intersection improvements at SR 80 and Old River Road
    - Coordinated corridor and intersection improvements along SR 21 between East 4th Street in Rincon to Goshen Road
    - Coordinated improvement along SR 30 at Midland Road and Kolic Hemley Road
- Monitor truck traffic conditions at the I-16/Old River Road interchange for the need for signalization or other safety countermeasures.
- Implement safety measures to slow truck traffic along SR 30 from the Chatham County line to SR 17 to mitigate potential impacts to residential areas and South Effingham High School.
- With respect to future industrial development:
    - Orient access to new industrial development in Industrial Cluster 3 toward Effingham Parkway to minimize potential neighborhood impacts along Hodgeville Road.
    - Consider safety measures to slow truck traffic along Old River Road to mitigate potential impacts to residential areas.

ACTIVE TRANSPORTATION

Non-motorized modes of transportation, including walking and biking, play a significant role in Effingham's multimodal transportation system. From a system-wide mobility perspective, encouraging shorter trips through walking or biking has the potential to not only decrease vehicular traffic but also reduce emissions, thereby enhancing air quality. Moreover, safe walking and biking infrastructure offers Effingham County's residents greater opportunities for recreation and can enhance overall quality of life.

EXISTING INFRASTRUCTURE

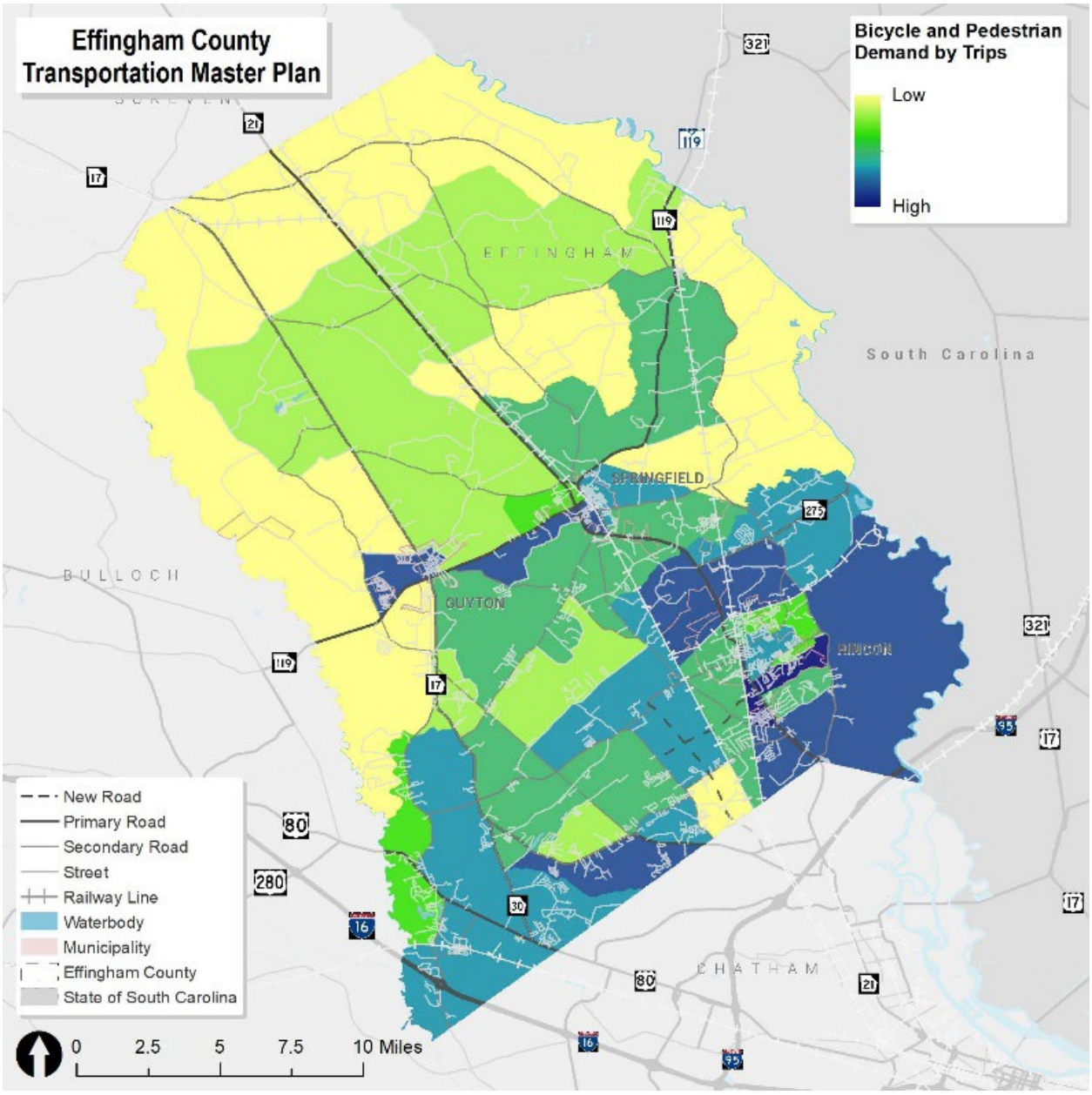
While a current bicycle and pedestrian infrastructure inventory was not available for analysis, Replica data was used to assess existing demand.

Effingham County currently has one trail, Guyton Main Street Rail, located in downtown Guyton. This trail will eventually be a part of the larger Georgia Hi-Lo Trail connecting Athens, Georgia to Savannah, Georgia. The paved Hi-Lo Trail will pass through the western side of the entire county. Effingham County and Springfield are also home to a portion of US Bike Route 1, connecting Florida to Maine upon completion. There are several short walking trails, Baker Walking Trail, McCall Park, and the Effingham County Parks & Recreation in Springfield.

BIKE AND PEDESTRIAN DEMAND - REPLICA DATA

The Existing Trends map shown in Figure 2-34, illustrates the destinations of walking and bicycle trips in Effingham County and closely relates to the population density map. As shown, popular pedestrian or bicycle trips are concentrated in and around Rincon and more specifically along Fort Howard Road and SR 21 and along SR 119 west and immediately east of SR 21.

Figure 2-34: Existing Trends



SR 21 and Fort Howard Road are high demand areas. Sidewalks and crosswalks line the southern side of Fort Howard Road from SR 21 to Old Augusta Road. SR 21 features sidewalks on one or both sides of the street from East Fourth Street to Prosperity Drive/Walmart driveway, with crosswalks at most intersections along this stretch. Beyond Prosperity Drive/Walmart driveway, there are residential neighborhoods, eateries, urgent cares, and various points of interest. Extending pedestrian facilities up to McCall Road would enhance mobility options for roadway users aiming to reach various destinations. South of McCall Road predominantly consists of industrial land uses. There are no bicycle facilities along SR 21 or Fort Howard Road.

Popular destinations along SR 119 immediately east of SR 21 include eateries and county facilities such as the Sheriff's office. To the west of SR 21, destinations comprise the Effingham County Hospital and other medical facilities, the Effingham County Recreation Complex, the Effingham County Library, the Effingham County Memorial Gardens, Effingham County Middle and High Schools, various grocery stores, churches, and additional eateries.

A sidewalk runs along SR 119 from east of Poplar Street to SR 17, with a crosswalk situated at the intersection of Central Blvd and SR 119. While sidewalks do not span the entire length of SR 119, footpaths are present. Footpaths along SR 119, despite the absence of continuous sidewalks, indicate the presence of pedestrian activity and the necessity for pedestrian infrastructure. They underscore the significance of pedestrian mobility in the area and highlight the need for accessible routes for pedestrians, enhancing connectivity and promoting active transportation. There are no bicycle facilities along SR 119.

Further analysis of Bicycle and Pedestrian Distribution, as depicted in Figure 2-35, indicates that a majority (86%) of all non-motorized trips were walking trips. Of these non-motorized trips, approximately half were for recreational purposes such as shopping (34%) or socializing (20%), and more than half (57%) occurred between 1:00 PM and 9:00 PM (Figure 2-36, Figure 2-37).

Notably, about 45% of these trips took place during evening, nighttime, or early morning hours when lighting may be limited. It's noteworthy that there are no lights available along the routes during these times. Additionally, about 60% of these trips were estimated to be less than a mile, with approximately 45% completed in under 10 minutes (Figure 2-38, Figure 2-39).

This analysis describes the importance of investing in bicycle and pedestrian infrastructure in these areas to further facilitate and encourage non-motorized modes of transportation. By catering to the needs of residents in these high-traffic regions, Effingham County can continue to promote sustainable and healthy transportation options while simultaneously enhancing community well-being and connectivity.

Figure2-35: Bicycle and Pedestrian Distribution

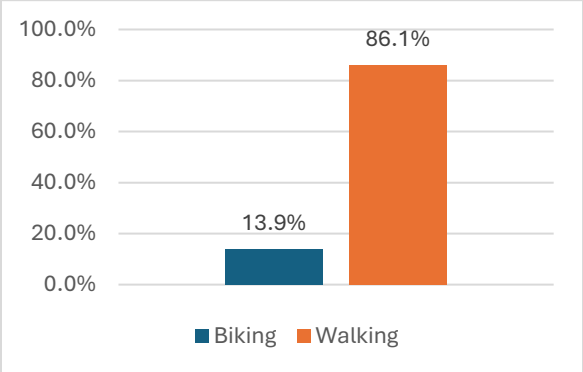


Figure 2-36: Purpose of Trip

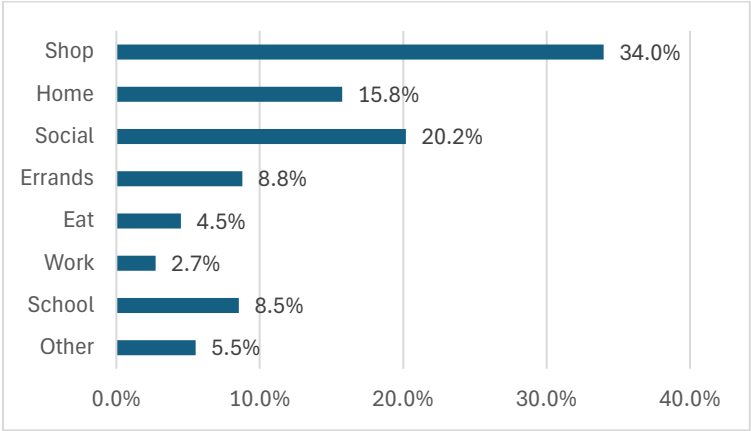


Figure 2-37: Time of Day – Starting Hours

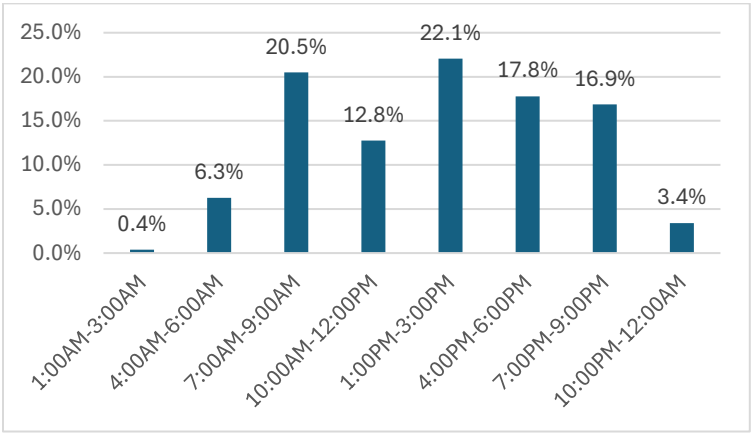


Figure 2-38: Trip Distance

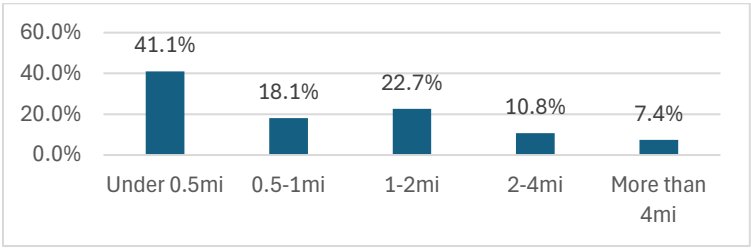
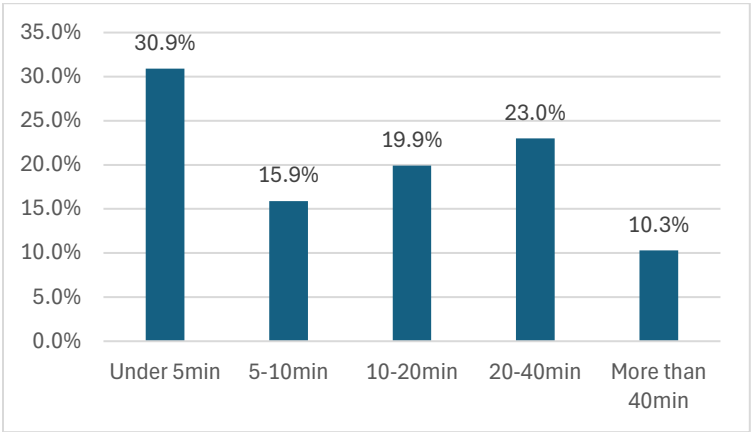


Figure 2-39: Duration of Walking or Biking



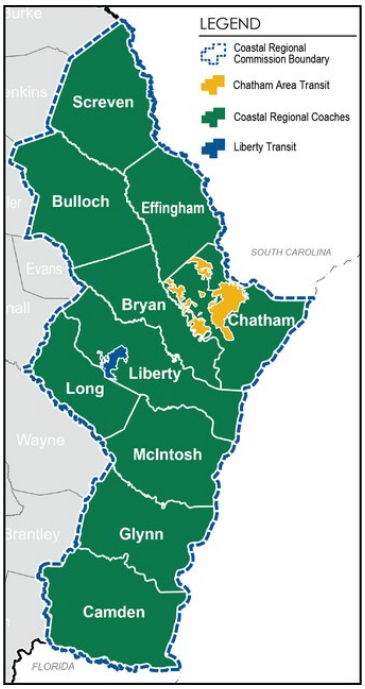
TRANSIT

Transit is an efficient, low cost, high-capacity way to connect people to services, which supports the economy, improves the quality of life for a community, facilitates freight movement, and reduces environmental impacts. However, there is currently no local, commuter, or paratransit transit service in Effingham County, which is prominently car dependent.

Transportation and development should be better coordinated in the future to enhance the link between transit and land use planning. Density of people and jobs along a corridor are indicators of a demand for transit. Reliable transit service creates the ability to connect employees to job locations. Downtown Savannah and the Gulfstream/Crossroads/Airport area were locations previously identified for regional commuter transit service.

EXISTING SERVICE

Effingham County is served by a regional transit system, Coastal Regional Coaches. The Transportation Services Department provides transportation service for any purpose within ten counites of Coastal Georgia region through the on-demand Coastal Regional Coaches (CRC) bus transit system. CRC operated a system of 62 buses across 5,100 square miles. Transit services run Monday - Friday 7AM to 5PM. Daily transit is not guaranteed for work commuters. There is no fixed-route bus service in Effingham County.



Trip reservations must be made 24 hours in advance and submitted by 12:00 noon for a next day trip. There is a 30-minute pickup. Reservations are made by telephone, online, or mobile application.

Children under the age of 14 must ride with an adult, and minors 14-18 require a parental waiver. Packages are limited to no more than what the passenger can carry, which could make trips for daily necessities or household needs challenging.

Traveling within the county has a base rate of $5 one-way and $10 for round trip. Multicounty travel costs a base rate of $5 per county traveled. On-demand service costs more than a fixed-route service, but while expensive, can provide access to the region. Coaches will pick you up at your residence or any pre-determined address. This is true as long as you:

- Live in an urban area traveling to a rural destination.
- Live in a rural area traveling to another rural area.
- Live in a rural area traveling to an urban destination. There is no service for urban-to-urban travel. The Coaches will also return you to your residence or pre-determined drop-off location.

PARK AND RIDE

Effingham County has two Park and Ride locations included in the GDOT Statewide Park and Ride lot database.

Table 2-16: Park and Ride Locations

Location	PR Number	Parking Spaces
City of Guyton	519	20
County Courthouse	516	53

The existing lot on SR 17 in Guyton serves as a regional park and ride system. It was recommended in a previous CORE MPO Study that the Effingham County Courthouse park-and-ride lot be removed as the courthouse parking lot is fully utilized on court days and does not have dedicated parking spaces for park-and-ride usage.

CHAPTER 3: PROJECT IDENTIFICATION

Based on the information gathered and analyses performed, a set of recommended projects were identified. These projects are intended to reduce existing congestion and safety concerns, but also to look to the future and anticipate future needs. Projects were developed in four categories: Intersection Improvements, Network Improvements, Bicycle and Pedestrian Facilities, and Policy Guides. The following sections explain more about how projects in each category were developed.

The TMP project recommendations section will be updated to reflect recommendations that have already been implemented, new recommendations to reflect changing needs, and new recommendations to reflect a deeper look at multimodal improvement and safety needs identified in the SS4A Safety Action Plan.

ONGOING AND UPCOMING PROJECTS

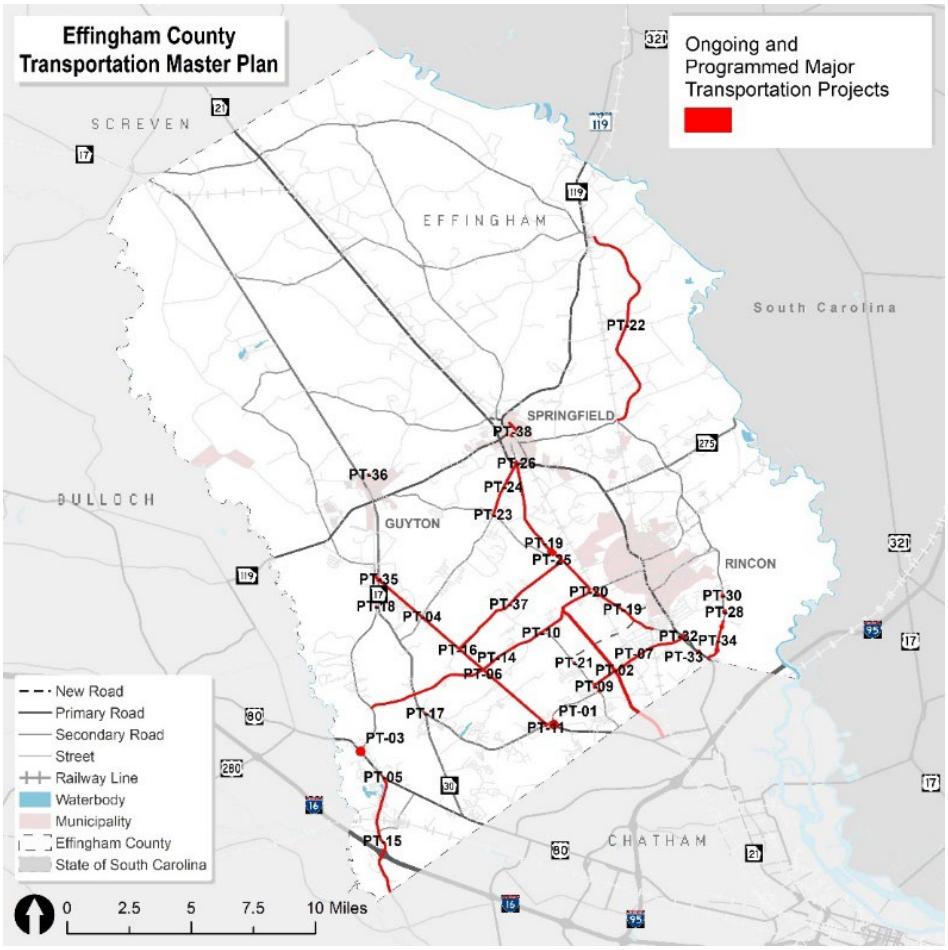
As discussed in the Needs Assessment, there are several ongoing or upcoming initiatives throughout Effingham County. Where these projects included major capacity, safety, or operational improvements they were included in the planning process and are documented as projects in this document. “Lane Improvement” projects were examined to determine specific lane improvements that are expected to best relieve congestion and are included in more detail in the next section.

Table 3-1. TSPLOST & GDOT Projects

ID	Project	Source
PT-01	SR 30 @ Kolic Helmy Road	GeoPI Database - PI 0029095
PT-02	Effingham Parkway from SR 30 to Blue Jay Road	GeoPI Database - PI 0020175
PT-03	SR 26/US 80 @ CR 311/Sandhill Road Roundabout	GeoPI Database - PI 0019658
PT-04	Courthouse & Midland Intersection	Effingham County TSPLOST
PT-05	Old River Road & Hwy 80	Effingham County TSPLOST
PT-06	Blue Jay Turn Lanes	Effingham County TSPLOST
PT-07	Goshen Road Widening	Effingham County TSPLOST
PT-08	Hodgeville @ Kolic Helmey Roundabout	Effingham County TSPLOST
PT-09	Hodgeville @ Goshen Roundabout	Effingham County TSPLOST
PT-10	Hodgeville @ Blue Jay Turn Lanes	Effingham County TSPLOST
PT-11	Midland Road @ Hwy 30	Effingham County TSPLOST
PT-12	McCall Road @ Little McCall Turn Lanes	Effingham County TSPLOST
PT-13	Courthouse Road @ McCall Realignment	Effingham County TSPLOST
PT-14	Blue Jay Road	Effingham County TSPLOST
PT-15	Old River Road	Effingham County TSPLOST
PT-16	Midland Road	Effingham County TSPLOST
PT-17	SR 30/SR 17 Intersection	Effingham County TSPLOST
PT-18	Sand Hill/Wesley Drive Intersection	Effingham County TSPLOST
PT-19	McCall Road	Effingham County TSPLOST
PT-20	Blue Jay Road/McCall Road Intersection	Effingham County TSPLOST
PT-21	Hodgeville Road/Gateway Parkway Intersection	Effingham County TSPLOST
PT-22	Stillwell-Clyo Road	Effingham County TSPLOST
PT-23	Courthouse Road/Little McCall Road	Effingham County TSPLOST
PT-24	Courthouse Road	Effingham County TSPLOST

ID	Project	Source
PT-25	Little McCall/McCall/Rahn Station Intersection	Effingham County TSPLOST
PT-26	SR21/McCall (Springfield)	Effingham County TSPLOST
PT-27	Old Augusta Road/General Way	Effingham County TSPLOST
PT-28	Old Augusta Road/Logistics Parkway	Effingham County TSPLOST
PT-29	Old Augusta Road/Logistics Parkway	Effingham County TSPLOST
PT-30	Old Augusta Road/Chimney Road	Effingham County TSPLOST
PT-32	SR 21/Goshen Road Extension	Effingham County TSPLOST
PT-33	SR 21/Commerce Drive	Effingham County TSPLOST
PT-34	Old Augusta Road	Effingham County TSPLOST
PT-35	SR 17/Midland Road	Effingham County TSPLOST
PT-36	Magnolia Steet Extension North	Effingham County TSPLOST
PT-37	Lowground Road	Effingham County TSPLOST
PT-38	Madison Lane Improvements	Effingham County TSPLOST
PT-39	Railroad Lane Improvements	Effingham County TSPLOST

Figure 3-1. TSPLOST and GDOT Projects



INTERSECTION IMPROVEMENT RECOMMENDATIONS

RECOMMENDATIONS FROM PREVIOUS Plans and Studies

Previous traffic and transportation planning and/or traffic engineering studies completed within the county were reviewed for recommended intersection capacity, safety, or operational improvement projects. These

recommendations were selected as improvement alternatives for the intersection improvement plan and evaluated under 2050 traffic conditions if located within the TMP study network. These studies include:

- The Previous 2021 Effingham County Transportation Master Plan
- The Costal Empire Study
- The CORE MPO TIP
- Goshen Road Corridor Study
- Old Augusta Road Corridor Study
- The Southeast Roadway Network Traffic Engineering Study

Table 3-2. Projects Identified from Previous Studies

Source	Intersection	Identified Recommendation	Previous Plan/Study ID	2024 TMP Intersection ID
Coastal Empire Study	US 80 and SR 17	Install multilane roundabout with eastbound bypass right turn lane along US 80	4	9
Coastal Empire Study	SR 21 and Old Augusta Road	Widen SR 21 to six lanes and install dual northbound right turn lanes	3	46
Goshen Road Corridor Study	Goshen Road at Huger Street	Install Eastbound Right Turn Lane	N/A	72
Goshen Road Corridor Study	Goshen Road and Crystal Drive	Install Westbound Right Turn Lane	N/A	73
Goshen Road Corridor Study	Goshen Road and Stephens Drive	Install Westbound Right Turn Lane	N/A	74
Goshen Road Corridor Study	Goshen Road and DR-Horton-Longleaf Driveway	Install Westbound Right Turn Lane	N/A	75
Old Augusta Road Corridor Study	SR 21 and Old Augusta Road	Install Dual Eastbound Left Turn Lanes, Install Triple Southbound Left Turn Lanes along Old Augusta Road and Widen SR 21 to Six Lanes	A	46
Old Augusta Road Corridor Study	Old Augusta Road and Parkers Driveway	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	B	60
Old Augusta Road Corridor Study	Old Augusta Road and South U-Turn Crossover	Multi Lane Unsignalized Median Break w/ Turn Lanes	N/A	61
Old Augusta Road Corridor Study	LEO and the Sanctuary	Install Unsignalized RCUT	C	62
Old Augusta Road Corridor Study	Old Augusta Road and Northgate	Widen Old Augusta Road to Four Lanes and Install Multilane Roundabout	D	63
Old Augusta Road Corridor Study	Old Augusta Road and Exeter/Trailer Yard	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	E	64
Old Augusta Road Corridor Study	Old Augusta Road and Cowan South	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	F	65
Old Augusta Road Corridor Study	Old Augusta Road and Estes	Install Multilane Roundabout	G	66
Old Augusta Road Corridor Study	Old Augusta Road and Chesterfield/Logistics	Install Multilane Roundabout	H	67

Source	Intersection	Identified Recommendation	Previous Plan/Study ID	2024 TMP Intersection ID
Old Augusta Road Corridor Study	Old Augusta Road and Cowan Center	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	J	68
Old Augusta Road Corridor Study	Old Augusta Road and Cowan North	Install Single Lane Roundabout	K	69
Old Augusta Road Corridor Study	Old Augusta Road and Chimney Road	Install Single Lane Roundabout	L	70
Old Augusta Road Corridor Study	SR 21 and Chimney Road	Install Unsignalized RCUT	N/A	71
Previous TMP	SR 119 and SR 17	Install a northbound right turn bypass lane	I-14	1
Previous TMP	SR 119 and Little McCall Road	Install single lane roundabout	I-34	2
Previous TMP	McCall Road and Low Ground Road	Install northbound left turn lane	I-33	5
Previous TMP	Courthouse Road and McCall Road	Realign Courthouse Road to Intersect McCall Road at Webb Road and Install Single Lane Roundabout	N-1	7
Previous TMP	Courthouse Road at Little McCall Road	Install stop bars along all approaches, repair road shoulders within the intersection area	I-37	8
Previous TMP	SR 17 and US 80/SR 26	Install southbound dual left turn lanes and provide an overlap phase for the westbound right turn movement	I-19	9
Previous TMP	Sand Hill Road and Blue Jay Road	Install single lane roundabout	I-31	14
Previous TMP	SR 17 and Midland Road	Install single lane roundabout	I-15	15
Previous TMP	SR 17 and Courthouse Road	Install southbound left and westbound right turn lanes	I-16	16
Previous TMP	SR 17 and Blue Jay Road	Install a northbound right turn bypass lane	I-17	17
Previous TMP	SR 17 and SR 30	Install a two way center turn lane along the southern leg of the intersection, a southbound left turn lane, and a westbound left turn lane	I-18	18
Previous TMP	SR 17 and Marlow Road	Install eastbound and southbound left turn lanes	I-22	19
Previous TMP	SR 17 and Jabez Jones Road	Signalize intersection and install southbound left and westbound right turn lanes	I-42	20
Previous TMP	Courthouse Road and Midland Road	Add left turn lanes on both approaches of Midland Road and right turn lanes on both approaches of Courthouse Road	I-11A	22
Previous TMP	Courthouse Road and Midland Road	Single-lane roundabout at the intersection of Courthouse Road and Midland Road	I-11B	22
Previous TMP	Blue Jay Road at Midland Road Lane	Add right turn lanes on all four approaches	I-2A	24
Previous TMP	Blue Jay Road at Midland Road	Install Single Lane Roundabout	I-2B	24
Previous TMP	SR 30 at Midland Road	Install eastbound and southbound left turn lanes (future traffic signal in project I-40)	I-6	25
Previous TMP	SR 30 and Midland Road	Signalize intersection and install and northbound left turn lane (assumes lane improvements part of project I-6 are completed)	I-40	25
Previous TMP	SR 30 and Hodgeville Road	Install single lane roundabout with a free flow eastbound through bypass lane and a yield controlled westbound right bypass lane	I-13	26
Previous TMP	Kolic Helmey Road and SR 30	Install eastbound left, westbound right, and southbound right turn lanes	I-9	27

Source	Intersection	Identified Recommendation	Previous Plan/Study ID	2024 TMP Intersection ID
Previous TMP	SR 30 and Kolic Helmey Road	Conduct signal warrant study and install signal with turn lanes (assumes lane improvements part of project I-9 are completed)	I-44	27
Previous TMP	Hodgeville Road at Goshen Road	Add a southbound left turn to Hodgeville Road	I-8A	29
Previous TMP	Hodgeville Road at Kolic Helmey Road	Add a left turn lane to Hodgeville Road and a right turn lane on Kolic Helmey Road	I-4A	30
Previous TMP	Lane Improvements at SR 21 and SR 119	Install additional northbound dual left turn lane and provide overlap phase for eastbound right turn movement	I-20	33
Previous TMP	SR 21 and McCall Road (North)	Signalize intersection, install northbound left turn lane, provide permissive-protected signal phase for westbound and northbound left turn movements, provide overlap phase for eastbound right turn movement	I-39	34
Previous TMP	SR 21 at Ebenezer Road	Move back stop bar for the eastbound through/left lane, modify northbound right turn lane to provide wider curb radius	I-35	36
Previous TMP	SR 21 and 9th Street	Install eastbound right turn lane, provide permissive-protected signal phase for side street left turning movements, provide overlap phase for eastbound right turn movement	I-12	37
Previous TMP	SR 21 and Fort Howard Road	Remove channelized islands at Rincon Commercial Park Drive and Fort Howard Road in order to convert existing northbound right turn lane to a through lane, install northbound right turn lane, convert westbound left turn lane to dual left turn, provide overlap phases for northbound and westbound right turn movements	I-23	38
Previous TMP	SR 21 and Walmart Access Driveway	Install northbound right turn lane	I-24	39
Previous TMP	SR 21 and Towne Park Drive	Prohibit left turns Along SR 21, converting intersection to partial MUT configuration, Provide U-turn locations north and south of the intersection	I-25	41
Previous TMP	SR 21 and Westwood Drive	Prohibit left turns Along SR 21, converting intersection to partial MUT configuration, Provide U-turn locations north and south of the intersection	I-26	42
Previous TMP	SR 21 and McCall Road (South)	Install additional northbound left turn lane, install additional eastbound left turn lane, convert eastbound right turn lane to a channelized free-flowing movement	I-27	43
Previous TMP	SR 21 SB and Goshen Road	Install westbound left turn lane along Goshen Road	I-28	44
Previous TMP	SR 21 NB and Goshen Road	Install eastbound left turn and westbound right turn lanes on Goshen Road, widen SR 21 southbound to three through lanes, provide permissive-protected signal phasing for eastbound left turn movement	I-29	45
Previous TMP	SR 21 and Old Augusta Road	Prohibit left turns along SR 21, converting intersection to partial MUT configuration, provide U-turn locations north and south of the intersection, Convert eastbound right turn lane to channelized free-flow conditions with downstream merge	I-30	46
Previous TMP	SR 21 and 4th Street	Signalize intersection and install westbound left turn lane	I-43	48
Previous TMP	Blue Jay Road at McCall Road (east)	Realign Blue Jay Road and McCall Road west of the intersection, Install northbound right turn lane with acceleration lane along McCall Road	I-3	50
Previous TMP	Blue Jay Road at McCall Road (East)	Install signage to clarify the distinction between intersection and rail crossing control	I-36	50
Previous TMP	Kolic Helmey Road at South Effingham Elementary School Driveway	Install Two Way Center Turn Lane and Right Turn Lanes	I-5	51
Previous TMP	SR 21 near Fort Howard Road	Convert driveways along Fort Howard Road and SR 21 within 500 ft of their intersection to right in/right out or RCUT configuration	I-21	52

Source	Intersection	Identified Recommendation	Previous Plan/Study ID	2024 TMP Intersection ID
Previous TMP	Springfield Elementary School Driveway	Install Turn Lanes along N Laurel Street and Springfield Road at Intersections with School Access Points	I-38	53
Previous TMP	US 80 and Sand Hill Road	Install traffic signal with southbound left and right turn lanes	I-32	
SERN Traffic Analysis	McCall Rd and Little McCall Road	Realign Rahn Station Road to Little McCall Road and Install Single Lane Roundabout with Bypass Lanes to Accommodate widening to the South	1	4
SERN Traffic Analysis	McCall Road and Blue Jay Road	Install Multi Lane Roundabout	4	6
SERN Traffic Analysis	McCall Road and New East-West Road/Effingham Power Driveway	Install Single Lane Roundabout	3	54
SERN Traffic Analysis	McCall Road at Blue Jay Road/Blandford Road (East)	Install single lane roundabout in conjunction with realignment of McCall Road (south) Project N-23	6	56
SERN Traffic Analysis	SR 21 at New East-West Road	Traffic Signal Control for New Intersection	7	57
SERN Traffic Analysis	New North-South Road and GIRP Road	Minor Street Stop Control for New Intersection	8	58

INTERSECTIONS IMPROVEMENT RECOMMENDATIONS

Three strategies were utilized for the development of intersection capacity improvement recommendations:

- Locations where an identified previous intersection project is not within the capacity analysis study network, the project was added to the recommendation program after a qualitative review for feasibility.
- Locations where one or more previous intersection project is within the capacity analysis network, the proposed improvements were evaluated under 2050 traffic conditions to ensure acceptable operations, typically defined as LOS D or better although LOS E can be accepted along high volume arterials. At intersections with multiple recommendations, projected operational conditions, expected costs and impacts were considered when selecting the preferred alternative.
- Locations projected to experience LOS E or LOS F under no build conditions where no previous project was identified or locations where previously identified projects do not result in acceptable operations, new operational improvement projects were developed using guidance from Effingham County, GDOT, and the ITE Traffic Engineering Handbook 7th Edition as well as preliminary operational analysis.

CONGESTION-FOCUSED INTERSECTION IMPROVEMENTS

Table 3-3. Congestion-Focused Intersection Project Alternatives and Recommendations

ID	Intersection	Alternative 1	Alternative 2	Recommendation
I-1	SR 17 at SR 119/Springfield Avenue	Install a northbound right turn bypass lane	-	Install a northbound right turn bypass lane
I-2	SR 119 at Little McCall Road	Install single lane roundabout	-	Install single lane roundabout
I-4	McCall Road at Little McCall Road	Install Single Lane Roundabout	Install two-way center turn lane (Including northbound left turn lane) along McCall Road and eastbound right turn lane	Realign Rahn Station Road to Little McCall Road and Install Single Lane Roundabout with Bypass Lanes on All Sides
I-5	McCall Road at Low Ground Road	Install Single Lane Roundabout	Install northbound left turn lane	Install Single Lane Roundabout
I-6*	McCall Road at Blue Jay Road/Blandford Road (West)	Install Multilane Roundabout with Bypass Lanes for All Approaches	-	Install Multilane Roundabout with Bypass Lanes for All Approaches
I-8	Courthouse Road at Little McCall Road	Install stop bars along all approaches, repair road shoulders within the intersection area	-	Install stop bars along all approaches, repair road shoulders within the intersection area
I-9	US 80 at SR 30	Install multilane roundabout with eastbound bypass right turn lane along US 80	Install southbound dual left turn lanes and provide an overlap phase for the westbound right turn movement	Install southbound dual left turn lanes and provide an overlap phase for the westbound right turn movement
I-10	US 80 at Sand Hill Road	Install traffic signal with southbound left and right turn lanes	Install Multilane Roundabout	Install Multilane Roundabout
I-11	US 80/SR 26 at Old River Road	Construct Old River Road Connector and Convert Existing Segment of Old River Road to One Way; Signalize and Install Westbound Left Turn Lane at the New Intersection of US 80 at the Old River Road Connector	Construct Old River Road Connector and Convert Existing Segment of Old River Road to One Way; Install Multilane Roundabout at the New Intersection of US 80 at the Old River Road Connector	Construct Old River Road Connector and Convert Existing Segment of Old River Road to One Way; Install Multilane Roundabout at the New Intersection of US 80 at the Old River Road Connector
I-12	Hodgeville Rd at Cedar Ridge Dr/Gateway Parkway	Install turn lanes	Install single lane roundabout	Install single lane roundabout
I-13	Midland Rd at Low Ground Rd	Install turn lanes	Install single lane roundabout	Install single lane roundabout
I-14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Install single lane roundabout	-	Install single lane roundabout
I-15	SR 17 at Midland Road	Install single lane roundabout	-	Install single lane roundabout
I-16	SR 17 at Courthouse Road	Install southbound left and westbound right turn lanes	-	Install southbound left and westbound right turn lanes

ID	Intersection	Alternative 1	Alternative 2	Recommendation
I-18	SR 17 at SR 30	Install a two way center turn lane along the southern leg of the intersection, a southbound left turn lane, and a westbound left turn lane	-	Install a two way center turn lane along the southern leg of the intersection, a southbound left turn lane, and a westbound left turn lane
I-19	SR 17 at Marlow Road	Install eastbound and southbound left turn lanes	-	Install eastbound and southbound left turn lanes
I-20	SR 17 at Jabez Jones Road	Install single lane roundabout with northbound right turn bypass lane	Signalize intersection and install southbound left and westbound right turn lanes	Install single lane roundabout with northbound right turn bypass lane
I-22	Midland Road at Courthouse Road	Install single lane roundabout	Install right turn lanes along all approaches	Install single lane roundabout
I-24	Blue Jay Road at Midland Road	Install Single Lane Roundabout	Add right turn lanes on all four approaches	Install Single Lane Roundabout
I-25	SR 30/Noel C. Conaway Road at Midland Road	Install Roundabout with Eastbound Bypass Lane	Signalize intersection and install eastbound, and southbound left turn lanes, install westbound right turn lane	Install Roundabout with Eastbound Bypass Lane
I-26	SR 30 at Hodgeville Road	Install single lane roundabout with a free flow eastbound through bypass lane and a yield controlled westbound right bypass lane	-	Install single lane roundabout with a free flow eastbound through bypass lane and a yield controlled westbound right bypass lane
I-27	SR 30 at Kolic Helmey Road	Install Multilane Roundabout	-	Install Multilane Roundabout
I-28	Blue Jay Road at Hodgeville Road	Install two-way center turn lane along Blue Jay Road and northbound right turn lane along Hodgeville Road	Install Single Lane Roundabout	Install Single Lane Roundabout
I-29	Hodgeville Road at Goshen Road	Install single lane roundabout	-	Install single lane roundabout
I-30	Hodgeville at Kolic Helmey Road	Install Single Lane Roundabout	-	Install Single Lane Roundabout
I-31	Rincon Stillwell Road at Fort Howard Road	Install Turn Lanes along Fort Howard Road	Install Single Lane Roundabout	Install Single Lane Roundabout
I-33	SR 21 at SR 119	Install additional northbound dual left turn lane and provide overlap phase for eastbound right turn movement	-	Install additional northbound dual left turn lane and provide overlap phase for eastbound right turn movement
I-36	SR 21 at SR 275/Ebenezer Road	Move back stop bar for the eastbound through/left lane, modify northbound right turn lane to provide wider curb radius	-	Move back stop bar for the eastbound through/left lane, modify northbound right turn lane to provide wider curb radius
I-37	SR 21 at Ninth Street	Install eastbound right turn lane, provide permissive-protected signal phase for side street left turning movements, provide overlap phase for eastbound right turn movement	-	Install eastbound right turn lane, provide permissive-protected signal phase for side street left turning movements, provide overlap phase for eastbound right turn movement
I-38	SR 21 at Fort Howard Road	Remove channelized islands at Rincon Commercial Park Drive and Fort Howard Road in order to convert existing northbound right	-	Remove channelized islands at Rincon Commercial Park Drive and Fort Howard Road in order to convert existing northbound right

ID	Intersection	Alternative 1	Alternative 2	Recommendation
		turn lane to a through lane, install northbound right turn lane, convert westbound left turn lane to dual left turn, provide overlap phases for northbound and westbound right turn movements		turn lane to a through lane, install northbound right turn lane, convert westbound left turn lane to dual left turn, provide overlap phases for northbound and westbound right turn movements
I-39	SR 21 at Prosperity Drive/Walmart Access	Install northbound right turn lane	-	Install northbound right turn lane
I-41	SR 21 at Towne Park Drive	Install Westbound Right Turn Lane	Prohibit left turns Along SR 21, converting intersection to partial MUT configuration, Provide U-turn locations north and south of the intersection	Install Westbound Right Turn Lane
I-42	SR 21 at Westwood Drive/Silver Lake Drive	Install Westbound Right Turn Lane	Prohibit left turns Along SR 21, converting intersection to partial MUT configuration, Provide U-turn locations north and south of the intersection	Install side street right turn lanes in conjunction with SR 21 Widening (Project N-18)
I-43	SR 21 at McCall Road	Install additional northbound left turn lane, install additional eastbound left turn lane, convert eastbound right turn lane to a channelized free-flowing movement	-	Install additional northbound left turn lane, install additional eastbound left turn lane, convert eastbound right turn lane to a channelized free-flowing movement
I-44	SR 21 SB at Goshen Road	Install westbound left turn lane along Goshen Road	-	Install westbound left turn lane along Goshen Road
I-45	SR 21 NB at Goshen Road	Install eastbound left turn and westbound right turn lanes on Goshen Road, widen SR 21 north bound to three through lanes, provide permissive-protected signal phasing for eastbound left turn movement	-	Install eastbound left turn and westbound right turn lanes on Goshen Road, widen SR 21 north bound to three through lanes, provide permissive-protected signal phasing for eastbound left turn movement
I-46	SR 21 at Old Augusta Road	Widen SR 21 to six lanes and install dual northbound right turn lanes	Install Dual Eastbound Left Turn Lanes, Install Triple Southbound Left Turn Lanes along Old Augusta Road and Widen SR 21 to Six Lanes	Install Dual Eastbound Left Turn Lanes, Install Triple Southbound Left Turn Lanes along Old Augusta Road and Widen SR 21 to Six Lanes
I-48	SR 21 at 4th Street	Signalize intersection and install westbound left turn lane	Convert intersection to RCUT configuration	Signalize intersection and install westbound left turn lane
I-54	McCall Road and New East-West Road/Effingham Power Driveway	Install Single Lane Roundabout	-	Install Single Lane Roundabout
I-56	McCall Road at Blue Jay Road/Blandford Road (East)	Install Single Lane Roundabout	-	Install Single Lane Roundabout in conjunction with realignment of McCall Road (south) Project N-23
I-57	SR 21 at New East-West Road	Traffic Signal Control for New Intersection	-	Traffic Signal Control for New Intersection

ID	Intersection	Alternative 1	Alternative 2	Recommendation
I-58	New North-South Road and GIRP Road	Minor Street Stop Control for New Intersection	-	Minor Street Stop Control for New Intersection
I-60	Old Augusta Road and Parkers Driveway	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	-	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway
I-61	Old Augusta Road and South U-Turn Crossover	Multi Lane Unsignalized Median Break w/ Turn Lanes	-	Multi Lane Unsignalized Median Break w/ Turn Lanes
I-62	LEO and the Sanctuary	Install Unsignalized RCUT	-	Install Unsignalized RCUT
I-63	Old Augusta Road and Northgate	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	-	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway
I-64	Old Augusta Road and Exeter/Trailer Yard	Install Multilane Roundabout	-	Install Multilane Roundabout
I-65	Old Augusta Road and Cowan South	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	-	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway
I-66	Old Augusta Road and Estes	Install Multilane Roundabout	-	Install Multilane Roundabout
I-67	Old Augusta Road and Chesterfield/Logistics	Install Multilane Roundabout	-	Install Multilane Roundabout
I-68	Old Augusta Road and Cowan Center	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	-	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway
I-69	Old Augusta Road and Cowan North	Install Single Lane Roundabout	-	Install Single Lane Roundabout
I-70	Old Augusta Road and Chimney Road	Install Single Lane Roundabout	-	Install Single Lane Roundabout
I-71	SR 21 and Chimney Road	Install Unsignalized RCUT	-	Install Unsignalized RCUT
I-72	Goshen Road at Huger Street	Install Eastbound Right Turn Lane	-	Install Eastbound Right Turn Lane
I-73	Goshen Road and Crystal Drive	Install Westbound Right Turn Lane	-	Install Westbound Right Turn Lane
I-74	Goshen Road and Stephens Drive	Install Westbound Right Turn Lane	-	Install Westbound Right Turn Lane
I-75	Goshen Road and DR-Horton-Longleaf Driveway	Install Westbound Right Turn Lane	-	Install Westbound Right Turn Lane

Note: The following intersection Project IDs are not used: 3, 7, 17, 21, 23, 32, 34, 35, 40, 47, 49, 50, 51, 52, 53, and 59

Note: Project I-6 will be completed as part of the Blue Jay Rd Widening Project, thus was not prioritized or phased as part of this plan.

Figure 3-2. Congestion-Focused Intersection Improvements

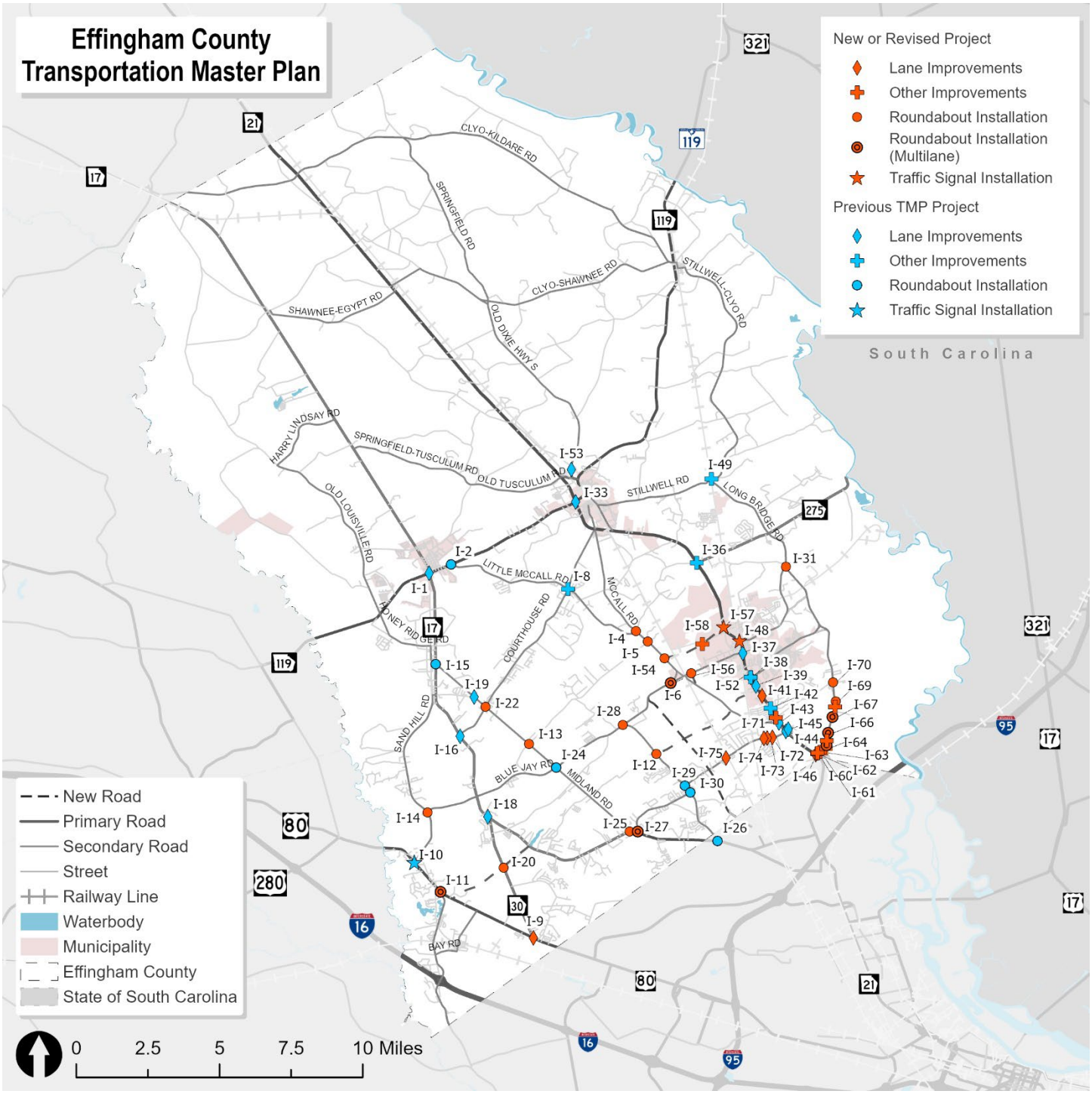


Figure 3-3. Congestion-Focused Intersection Improvements in Rincon

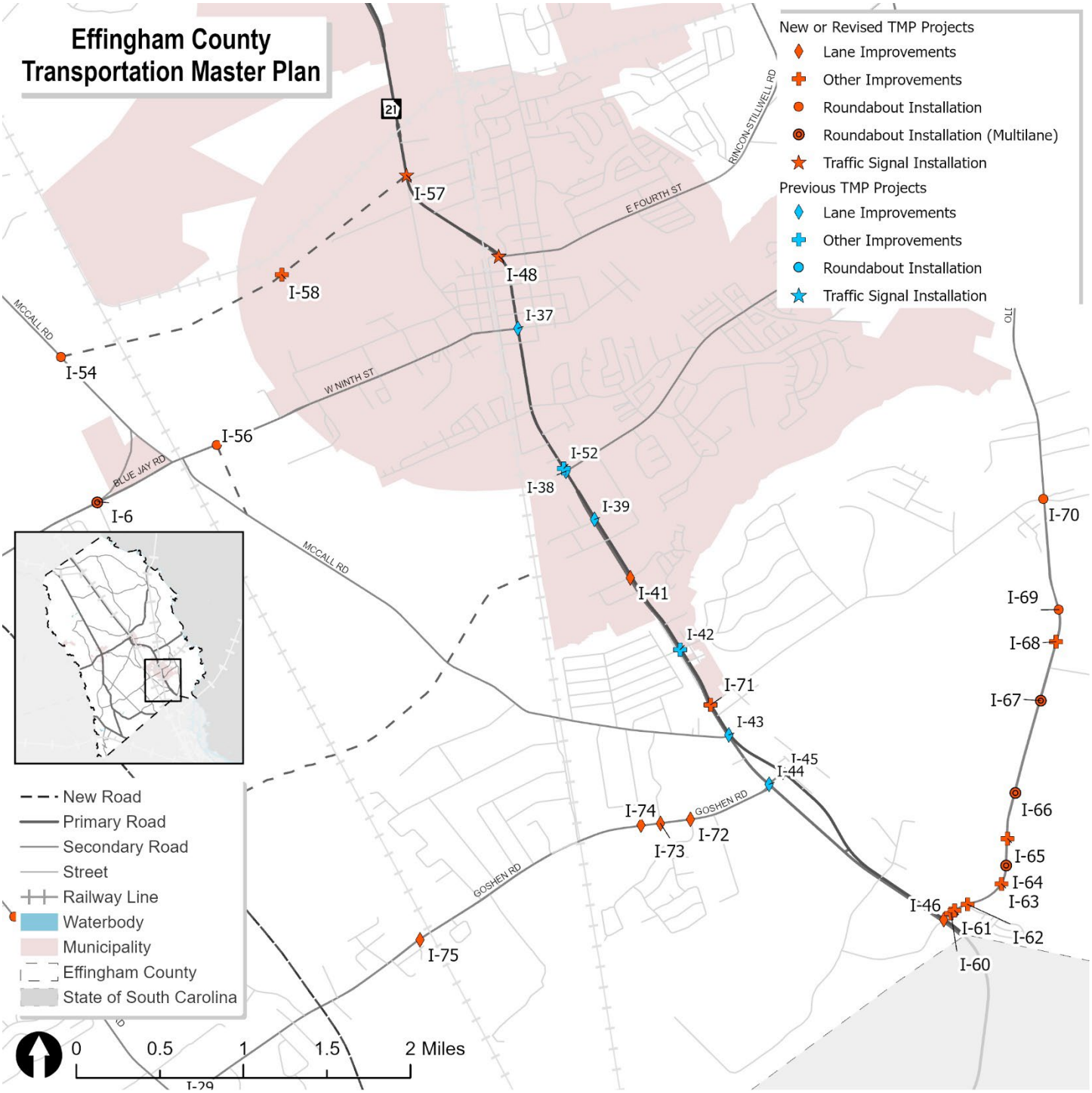
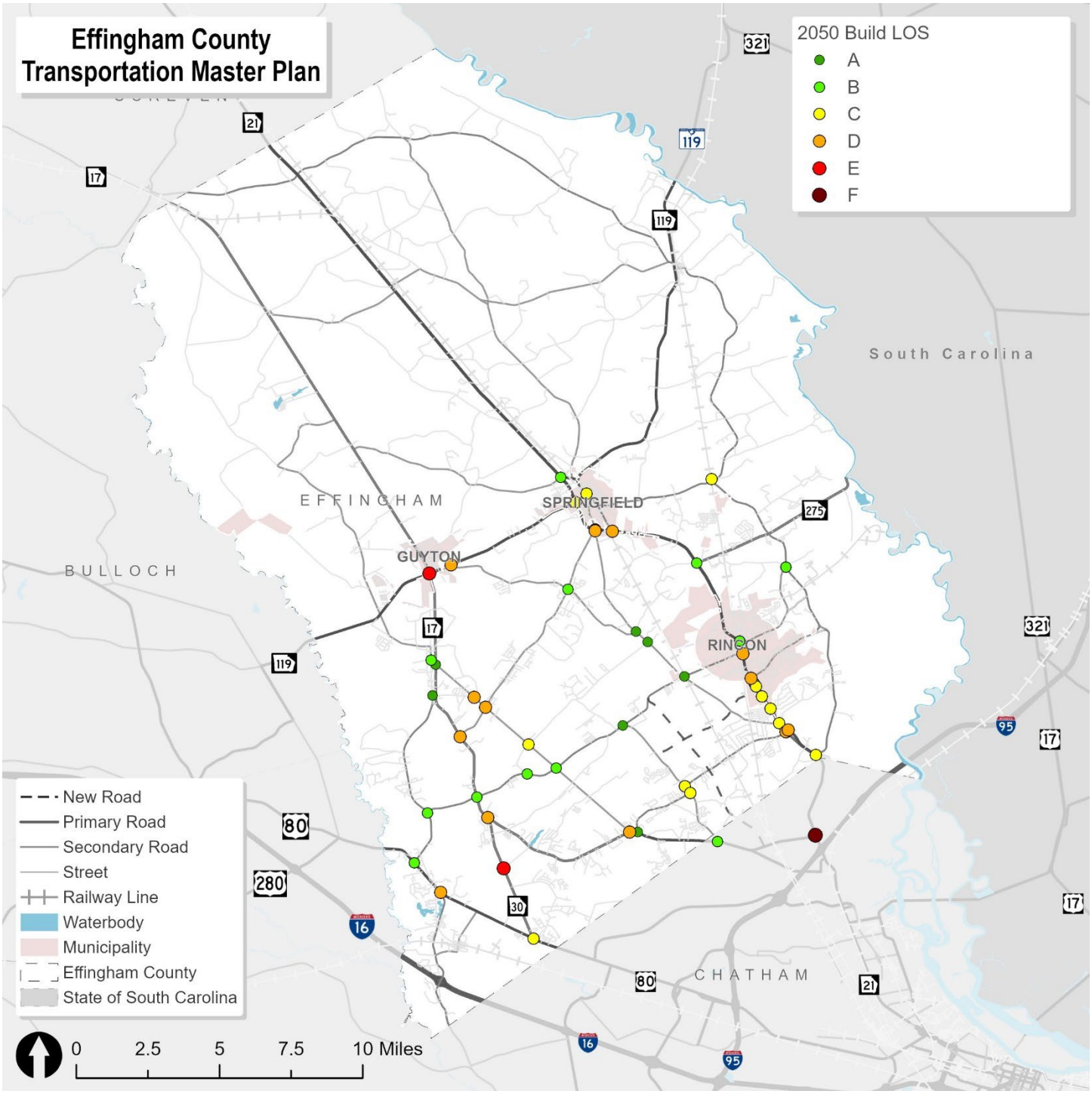


Table 3-4. Congestion-Focused Intersection Project Alternative Capacity Analysis Results

Intersection ID	Location	Build Alternative 1				Build Alternative 2				2050 Build Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	SR 17 at SR 119/Springfield Avenue	B	13	E	36	-	-	-	-	B	13	E	36
2	SR 119 at Little McCall Road	D	27.9	A	9.4	-	-	-	-	D	27.9	A	9.4
3	SR 119/Laurel Street at SR 119/Madison Street	C	29.6	B	12	-	-	-	-	C	29.6	B	12
4	McCall Road at Little McCall Road	A	6	A	6.8	-	-	-	-	A	6	A	6.8
5	McCall Road at Low Ground Road	A	6.3	A	6.8	-	-	-	-	A	6.3	A	6.8
6	McCall Road at Blue Jay Road/Blandford Road (West)	A	6.4	A	5.9	-	-	-	-	A	6.4	A	5.9
7	McCall Road at Courthouse Road	C	15	D	27.5	-	-	-	-	C	15	D	27.5
8	Courthouse Road at Little McCall Road	B	12.7	B	14.7	-	-	-	-	B	12.7	B	14.7
9	US 80 at SR 30	**F**	**131**	C	21.8	C	21	B	19.7	C	21	B	19.7
10	US 80/SR 26 at Sand Hill Road	B	10.1	D	51	B	10.7	D	25.2	B	10.7	D	25.2
11	US 80 at Old River Road	B	10.1	D	51	A	5.7	B	12.4	A	5.7	B	12.4
13	Sand Hill Road at Marlow Road	A	9.3	B	10	-	-	-	-	A	9.3	B	10
14	Central Avenue at Midland Road	A	9.6	A	8.7	-	-	-	-	A	9.6	A	8.7
14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	B	10.6	A	9.3	-	-	-	-	B	10.6	A	9.3
15	SR 17 at Midland Road	A	8	A	9.6	-	-	-	-	A	8	A	9.6
16	SR 17 at Courthouse Road	D	27.1	C	19.7	-	-	-	-	D	27.1	C	19.7
17	SR 17 at Blue Jay Road	A	7.8	B	10.5	-	-	-	-	A	7.8	B	10.5
18	SR 17 at SR 30	B	11.8	D	25.5	-	-	-	-	B	11.8	D	25.5
19	SR 17 at Marlow Road	C	20.5	D	30	-	-	-	-	C	20.5	D	30
20	SR 17 at Jabez Jones Road	E	37.2	A	9.9	B	16.3	A	9.7	E	37.2	A	9.9
21	Blue Jay Road at Low Ground Road	B	11	B	10.7	-	-	-	-	B	11	B	10.7
22	Midland Road at Courthouse Road	A	8	A	8.5	D	25.4	C	22.1	A	8	A	8.5
23	Midland Road at Low Ground Road	C	18	C	20.3	-	-	-	-	C	18	C	20.3
24	Blue Jay Road at Midland Road	A	9.2	B	14.1	**F**	**56**	**F**	**88.5**	A	9.2	B	14.1
25	SR 30/Noel C. Conaway Road at Midland Road	D	30.8	A	8.4	C	28.1	B	12.3	D	30.8	A	8.4
26	SR 30 at Hodgeville Road	A	2	B	13.9	-	-	-	-	A	2	B	13.9
27	SR 30 at Kolic Helmey Road	A	8.1	A	8.8	-	-	-	-	A	8.1	A	8.8
28	Blue Jay Road at Hodgeville Road	C	19.9	D	29.1	A	8.5	A	9.2	A	8.5	A	9.2
29	Hodgeville Road at Goshen Road	B	14	C	15.6	-	-	-	-	B	14	C	15.6
30	Hodgeville at Kolic Helmey Road	C	19.3	B	12.4	-	-	-	-	C	19.3	B	12.4
31	Old Augusta Road/Fort Howard Road at Fort Howard Road	C	24.1	E	43.7	A	9.4	B	11.3	A	9.4	B	11.3
32	SR 21 at SR 21/Old Tusculum Road	B	13.5	A	7.9	-	-	-	-	B	13.5	A	7.9
33	SR 21 at SR 119	C	30.2	C	25.5	-	-	-	-	C	30.2	C	25.5
34	SR 21 at McCall Road	B	20	C	21.3	-	-	-	-	B	20	C	21.3
35	SR 21 at Laurel Street	C	33.8	D	35.3	-	-	-	-	C	33.8	D	35.3
36	SR 21 at SR 275/Ebenezer Road	B	13	B	19	-	-	-	-	B	13	B	19

Intersection ID	Location	Build Alternative 1				Build Alternative 2				2050 Build Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
37	SR 21 at Ninth Street	C	24.6	D	37.4	-	-	-	-	C	24.6	D	37.4
38	SR 21 at Fort Howard Road	C	21.8	D	46.1	-	-	-	-	C	21.8	D	46.1
39	SR 21 at Prosperity Drive/Walmart Access	A	5.6	C	20	-	-	-	-	A	5.6	C	20
40	SR 21 at Kroger/Goody's Access	A	8.2	B	17	-	-	-	-	A	8.2	B	17
41	SR 21 at Towne Park Drive	A	9.2	C	29.6	A	5.4	C	23	A	9.2	C	29.6
42	SR 21 at Westwood Drive/Silver Lake Drive	B	11.3	E	73.3	B	15.5	C	29.3	B	11.3	E	73.3
43	SR 21 at McCall Road	C	25.8	C	24.6	-	-	-	-	C	25.8	C	24.6
44	SR 21 SB at Goshen Road	C	29.4	D	35.4	-	-	-	-	C	29.4	D	35.4
45	SR 21 NB at Goshen Road	B	18.7	D	36.8	-	-	-	-	B	18.7	D	36.8
46	SR 21 at Old Augusta Road	C	32	B	19.4	C	24.8	B	18.2	C	24.8	B	18.2
47	SR 21 at SR 30	**F**	**228**	**F**	**122.8**	-	-	-	-	**F**	**228**	**F**	**122.8**
48	SR 21 at 4th Street	B	12.2	B	14.9	C	22.1	F	59.9	B	12.2	B	14.9
49	Stillwell Rd at Long Bridge Rd	C	15.4	C	19.8	-	-	-	-	C	15.4	C	19.8
50	McCall Road at Blue Jay Road/Blandford Road (East)	A	6.1	A	6.5	-	-	-	-	A	6.1	A	6.5

Figure 3-4. Congestion-Focused Intersection Project Alternative Capacity Analysis Results



Other Intersection Improvements

Additional intersection projects have been included to address other concerns. These include safety and access management projects as well as turning lanes at school entrances to reduce school-related congestion.

Table 3-5. Other Intersection Improvements

ID	Intersection	Recommendation
I-49	Stillwell Road at Long Bridge Road	Realign Long Bridge Road to be located further from the railroad line.
I-52	SR 21 near Fort Howard Road	Convert driveways along Fort Howard Road and SR 21 within 500 feet of their intersection to right in/right out or RCUT configuration
I-53	Springfield Elementary School Driveway	Install Turn Lanes along N Laurel Street and Springfield Road at Intersections with School Access Points

NETWORK IMPROVEMENT RECOMMENDATIONS

An evaluation of previous studies, in addition of planning level traffic analysis considering existing infrastructure, traffic volume and trip patterns, and expected regional growth and development on roadways throughout the network was performed to determine the need for future major roadway network capacity improvements and needs including:

- Roadway Widenings
- Freight Upgrades
- New Roadways
- Bridge Replacements

FUTURE ROADWAY CAPACITY IMPROVEMENTS

Network Improvement Recommendations were extracted from the previous 2021 Effingham County TMP and given a planning level feasibility review to identify any potential alterations that may be needed. Additional network improvement projects were identified from other studies within the region as well as a sketch planning exercise. The examination of roadway network improvement needs include examination of new connections and estimated the traffic that will use the new roadway, along with number of lanes needed and traffic control proposed for the endpoints of the new road connection. Please note, these will be planning level recommendations and do not include traffic engineering studies for review and approval by GDOT.

N-16: McCall Road Realignment

This project was developed as part of the Southeastern Roadway Network in order to accommodate industrial and commercial growth in the area. It consists of the realignment of McCall Road South of Blandford Road to the east.

N-19: Blue Jay Road Extension from Sand Hill Road *to US 280*

Identified in the Costal Empire Study, this project is an extension of Blue Ja Road from Sand Hill Road to US 280. The project would provide an additional connection between SR 21 and I-16, creating redundancy in the transportation network.

N-21: Old Augusta Road Widening

This project was identified in the Old Augusta Road Corridor Study in addition to the intersection improvement projects documented in the previous section. It consists of widening Old Augusta Road to four lanes with a divided median from SR 21 to north of the Chesterfield/Logistics driveways. This capacity improvement will accommodate the increasing intensity of industrial development along Old Augusta Road.

N-22: Southeastern Roadway Network (SERN) East-West Roadway

This project was developed as part of the Southeastern Roadway Network in order to accommodate industrial and commercial growth in the area. It consists of a new roadway connecting McCall Road and SR 21 north of Blandford Road.

N-23: Southeastern Roadway Network (SERN) North-South Roadway

This project was developed as part of the Southeastern Roadway Network in order to accommodate industrial and commercial growth in the area. It consists of a new roadway connecting the SERN East-West Roadway with Costal Trade Center Roadway and the Georgia International Rail Park Roadway.

N-25: Jabez Jones Road Extension from SR 30 to US 80

This is a new roadway project with the purpose of providing a connection between HW-17S at Jabez Jones Road and US HWY 80. This project will provide an alternative for east-west trips in the area avoiding the congested US 80 at SR 30 intersection and increasing network redundancy. In addition, the roadway would provide connectivity to I-16 and the KIA plant located in Bryan County.

Benefits would include reduced travel distances and times for trips utilizing the new facility as well as a reduction in volume along US 80 and SR 30. The effectiveness of this project would be related to project N-28, as increasing the capacity and network gravity of Old River Road would increase traffic diverted along the proposed extension.

N-28: Old River Road Widening from North of I-16 to US 80

This roadway widening project was identified due to the high volumes along Old River Road, the need for connectivity with the interstate, and the recent interchange improvements at I-16 and Old River Road. This project would require coordination with Bryan County and GDOT, as well as a scoping study.

N-30: Egypt Ardmore Road Paving

Identified during the sketch planning process, this project involves converting the dirt road Egypt Ardmore Road to a paved section designed to accommodate heavy vehicles, including shoulders. This would provide east-west connectivity in the northern section of the county, particularly for heavy vehicles.

N-32: Clyo-Kildare Road Freight Accommodation Improvements

Identified during the sketch planning process, this project consists of improvements to Clyo-Kildare Road from SR 119 to SR 21 such as shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic. This project provides increased east-west connectivity in the county for heavy vehicles.

N-34: Fair Street Freight Accommodation Improvements

Identified during the sketch planning process, this project consists of improvements to Fair Street from SR 119 to Clyo-Shawnee Road such as shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic. This project provides increased east-west connectivity in the county for heavy vehicles.

Table 3-6. Roadway Network Capacity Projects

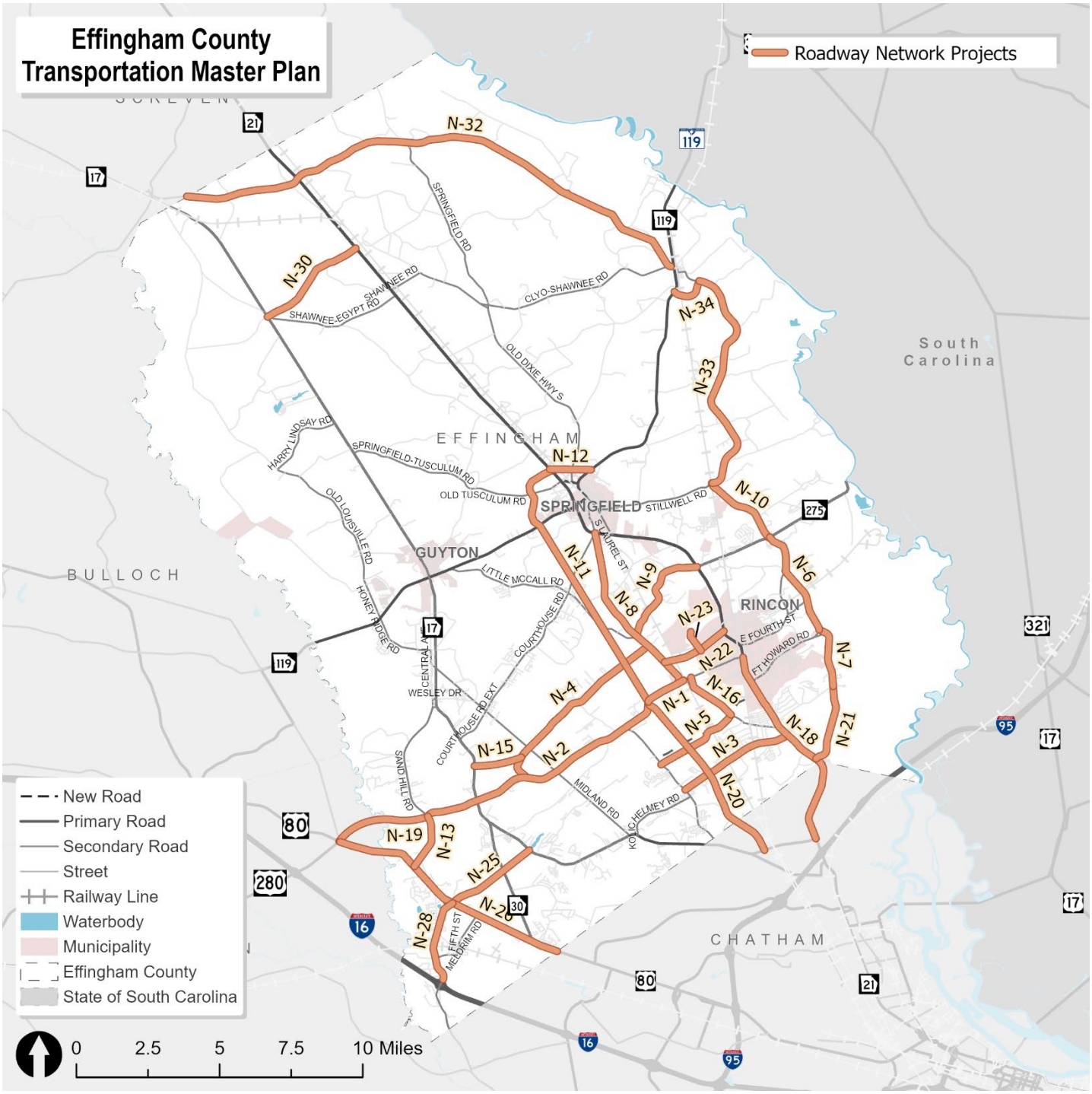
Project ID	Name	Description	Project Class
N-1	Blue Jay Road from Effingham Parkway to McCall Rd	Widen travel lanes and improve roadway structure to support truck movement. Four lane divided with sidewalk and multiuse path from Effingham Parkway to McCall Road.	Widening and Freight Upgrades
N-2	Blue Jay Road from McCall Rd to Sandhill Rd	Shoulder widening and turn lane improvements. Include Sidewalk and a multiuse path.	Widening and Freight Upgrades
N-3	Goshen Road Two Way Left Turn Lane	Addition of center continuous two way left turn lane on Goshen Road	Roadway Improvements
N-4	Low Ground Road Safety Improvements	Improve Low Ground Road to reduce crash risk and accommodate potential vehicle demand; install striping to denote separate lanes, roadway shoulders, and resurface the facility	Roadway Improvements
N-5	OmniTRAX East-West Connector	New two-lane roadway between Hodgeville Road and McCall Road potentially to be built as part of a future development	New Roadway
N-6	Old Augusta Road Freight Accommodations	Freight Accommodations from Ebenezer Road to Fort Howard Road	Freight Upgrades
N-7	Old Augusta Road Widening Phase II	Widen Old Augusta Road to four lanes with a divided median from Chimney Road to Fort Howard Road.	Widening
N-8	McCall Road Widening and Freight Upgrades	Widen roadway to four lanes from Blue Jay/Blandford Rd to Little McCall Road. Widen travel lanes and improve roadway structure to support truck movement. Phase 1 Blue Jay Road to East-West Road, Phase 2 East-West Road to Little McCall Road, Phase 3 Little McCall Road to SR 119.	Widening and Freight Upgrades
N-9	Rahn Station Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of this segment to the County truck ordinance as truck routes should be considered.	Freight Upgrades
N-10	Long Bridge Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement.	Freight Upgrades
N-11	Effingham Parkway Ext. / SR 21 - SR 119 Connector	Construct new roadway from SR 21 north of Old Tusculum Road to SR 119 west of Effingham County Middle School. Construct a 2-lane extension of Effingham Parkway from McCall Road to SR 119	New Roadway
N-12	Northwest Springfield bypass SR 119 to SR 21	New roadway from SR 119 to SR 21 with at-grade railroad crossing	New Roadway
N-13	Sand Hill Road Operational Improvements	Improve Sand Hill Road, including shoulder improvements, increasing lane width, and curve reconstruction.	Freight Upgrades
N-15	Low Ground Road Extension West	Extension of Low Ground Road West from bend towards Blue Jay Road to SR 17	New Roadway
N-16	McCall Road (south) Roadway Realignment	Realign section south of Blandford to the east.	Roadway Improvements
N-18	SR 21 Widening	Widen SR 21 from SR 30 to 9th Street in Rincon. Phase 1 SR 30 to McCall Road, Phase 2 McCall Road to 9th Street. Part of this project is in Chatham County	Widening
N-19	Blue Jay Road Extension from Sandy Hill Road to US 280	Construct new roadway to connect Blue Jay Road at Sand Hill Road to US 280 at US 80.	New Roadway
N-20	Effingham Parkway Widening	Widen Effingham Parkway to four lanes	Widening
N-21	Old Augusta Road Widening	Widen Old Augusta Road to four lanes with a divided median from SR 21 to north of Chimney Road.	Widening

Project ID	Name	Description	Project Class
N-22	Southeastern Roadway Network (SERN) East-West Roadway	Construct a new roadway connecting McCall Road and SR 21 north of Blandford Road including a Railroad Grade Separation	New Roadway
N-23	Southeastern Roadway Network (SERN) North-South Roadway	Construct a new roadway connecting the SERN East-West Roadway with Costal Trade Center Roadway and the Georgia International Rail Park Roadway	New Roadway
N-25	Jabez Jones Road Extension from SR 30 to US 80	Construct a new roadway project with the purpose of providing a connection betweenSR-17S at Jabez Jones Rd and US 80	New Roadway
N-26	US 80 Widening from SR 17 to US 280	Widen US 80 to four lanes with raised median or two-way-left turn lane	Widening
N-28	Old River Road Widening from North of I-16 to US 80	Conduct a scoping study to investigate the feasibility of widening Old River Road to four lanes	Further Study
N-30	Egypt Ardmore Road Paving	Convert the dirt road Egypt Ardmore Road to a paved section designed to accommodate heavy vehicles, including shoulders	Roadway Improvements
N-32	Clyo-Kildare Road Freight Accommodation Improvements	Improve Clyo-Kildare Road from SR 119 to SR 21 including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	Freight Upgrades
N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Improve Stillwell Clyo Road from Long Bridge Road to Fair Street including shoulder improvements, increasing lane width, and curve reconstruction	Roadway Improvements
N-34	Fair Street Freight Accommodation Improvements	Improve Fair Street from SR 119 to Clyo-Shawnee Road including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	Freight Upgrades

Note: The following roadway network project IDs were not used: 14, 17, 24, 27, 29 and 31.

Note: Additional projects along I-95 and I-16 will be performed by GDOT using federal and state funding, administered by GDOT.

Figure 3-5. Roadway Network Capacity Projects



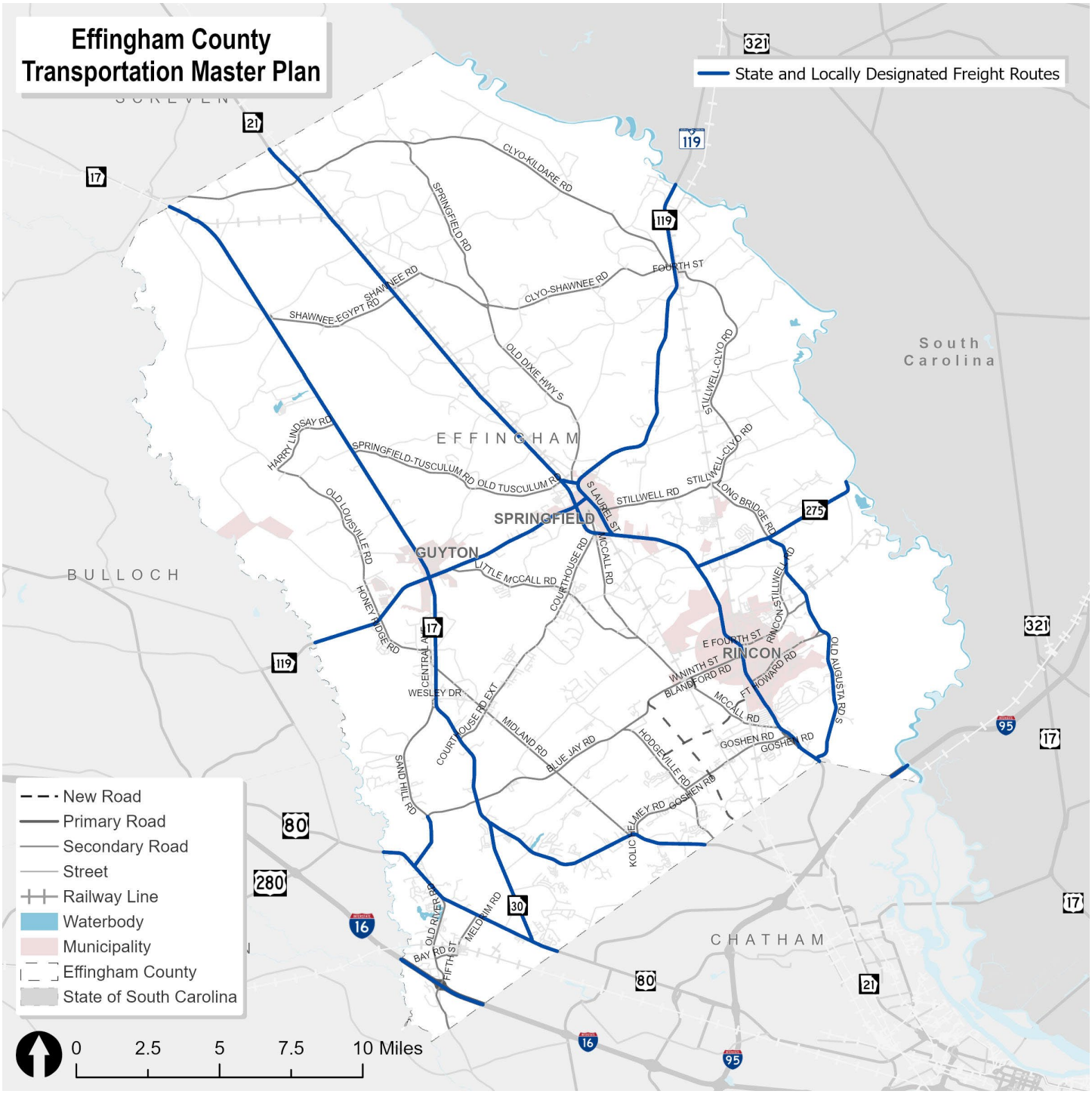
MULTIMODAL IMPROVEMENT RECOMMENDATIONS

In addition to traditional intersection and roadway recommendations, multimodal travel needs were examined to determine the need for enhancements to facilitate the use of that mode.

TRUCK / FREIGHT

This will include an examination of the current truck routes and prohibitions and consideration of changes that may be needed due to commercial growth and roadway functional classification. Based on the analysis, actions are needed to address existing and potential freight movement. Additional truck routes, roadway and safety improvements, and consideration for future development.

Figure 3-6. Designated Freight Routes



Designation of Additional Truck Routes

Based on the existing truck traffic and potential freight development, the following roadways should be considered for local freight route designation.

- Effingham Parkway
- Old River Road
- McCall Road – from Blue Jay Road to Gateway Parkway

Freight-related Roadway Improvements

- Intersection improvements at US 80 and Old River Road
- Coordinated corridor and intersection improvements along SR 21 between East 4th Street in Rincon to Goshen Road
- Coordinated improvement along SR 30 at Midland Road and Kolic Hemley Road

Safety

- Monitor truck traffic conditions at the I-16/Old River Road interchange for the need for signalization or other safety countermeasures.
- Implement safety measures to slow truck traffic along SR 30 from the Chatham County line to SR 17 to mitigate potential impacts to residential areas and South Effingham High School.

Future Industrial Development

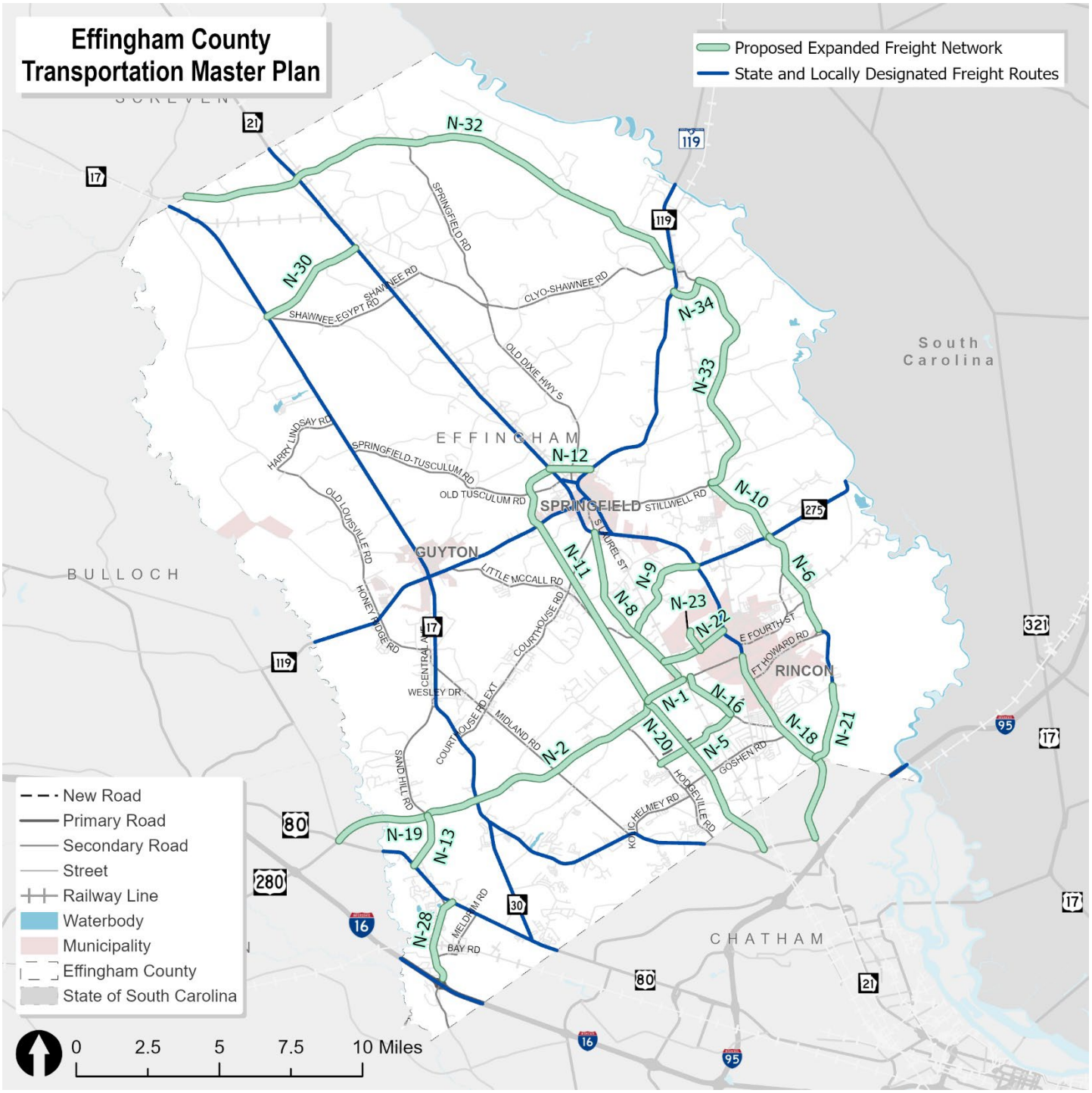
- Orient access to new industrial development off McCall Road toward Effingham Parkway to minimize potential neighborhood impacts along Hodgeville Road.
- Consider safety measures to slow truck traffic along Old River Road to mitigate potential impacts to residential areas.

Table 3-7. Freight Related Projects

Project ID	Name	Description	Project Class
N-1	Blue Jay Road Upgrades from Effingham Pkwy to McCall Rd	Widen travel lanes and improve roadway structure to support truck movement. Four lane divided from Effingham Parkway to McCall Road (south) realignment. Include Sidewalk and a multiuse path.	Widening and Freight Upgrades
N-2	Blue Jay Road Upgrades from McCall Rd to Sandhill Rd	Shoulder widening and turn lane improvements.	Widening and Freight Upgrades
N-3	Goshen Road Two Way Left Turn Lane	Addition of center continuous two way left turn lane on Goshen Road	Roadway Improvements
N-5	OmniTrax East-West Connector	New two-lane roadway between Hodgeville Road and McCall Road potentially to be built as part of a future development	New Roadway
N-8	McCall Road Widening and Freight Upgrades	Widen roadway to four lanes from Blue Jay/Blandford Rd to Little McCall Road. Widen travel lanes and improve roadway structure to support truck movement. Phase 1 Blue Jay Road to East-West Road, Phase 2 East-West Road to Little McCall Road, Phase 3 Little McCall Road to SR 119.	Widening and Freight Upgrades
N-9	Rahn Station Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of this segment to the County truck ordinance as truck routes should be considered.	Freight Upgrades
N-10	Long Bridge Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement.	Freight Upgrades
N-11	Effingham Parkway Ext. / SR 21 - SR 119 Connector	Construct new roadway from SR 21 north of Old Tusculum Road to SR 119 west of Effingham County Middle School. Construct a 2-lane extension of Effingham Parkway from McCall Road to SR 119	New Roadway
N-12	Northwest Springfield bypass SR 119 to SR 21	New roadway from SR 119 to SR 21 with at-grade railroad crossing	New Roadway

Project ID	Name	Description	Project Class
N-13	Sand Hill Road Operational Improvements	Improve Sand Hill Road, including shoulder improvements, increasing lane width, and curve reconstruction.	Freight Upgrades
N-18	SR 21 Widening	Widen SR 21 from SR 30 to 9th Street in Rincon. Part of this project is in Chatham County.	Widening
N-19	Blue Jay Road Extension from Sandy Hill Road to US 280	Construct new roadway to connect Blue Jay Road at Sand Hill Road to US 280 at US 80.	New Roadway and Freight Upgrades
N-20	Effingham Parkway Widening	Widen Effingham Parkway to four lanes	Widening
N-21	Old Augusta Road Widening	Widen Old Augusta Road to four lanes with a divided median from SR 21 to north of Chimney Road.	Widening
N-22	Southeastern Roadway Network (SERN) East-West Roadway	Construct a new roadway connecting McCall Road and SR 21 north of Blandford Road including a Railroad Grade Separation	New Roadway
N-23	Southeastern Roadway Network (SERN) North-South Roadway	Construct a new roadway connecting the SERN East-West Roadway with Costal Trade Center Roadway and the Georgia International Rail Park Roadway	New Roadway
N-28	Old River Road Widening from North of I-16 to US 80	Conduct a scoping study to investigate the feasibility of widening Old River Road to four lanes	Further Study
N-32	Clyo-Kildare Road Freight Accommodation Improvements	Improve Clyo-Kildare Road from SR 119 to SR 21 including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	Freight Upgrades
N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Improve Stillwell Clyo Road from Long Bridge Road to Fair Street including shoulder improvements, increasing lane width, and curve reconstruction	Freight Upgrades
N-34	Fair Street Freight Accommodation Improvements	Improve Fair Street from SR 119 to Clyo-Shawnee Road including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	Freight Upgrades

Figure 3-7. Freight Related Projects Recommendations



BICYCLE AND PEDESTRIAN

Based on information from previous studies and analyses performed, bicycle and pedestrian projects were identified to facilitate safe and efficient bicycle and pedestrian travel. As discussed in the Needs Assessment, areas with significant pedestrian and bicycle demand are primarily centered in Rincon and other areas south of SR 119, particularly around SR 21 and US 80. As a result, the majority of identified projects are concentrated within these areas.

Furthermore, this countywide plan aims to establish north-south and east-west regional connections, while also addressing the necessity for additional local bicycle and pedestrian pathways. These local connections are particularly important around places of interest and community facilities such as libraries, parks, schools, areas where residences and commercial or social activities are closely clustered, and in nearly all new development projects.

Projects were identified in the following categories: multi-use trail, bicycle lane, wide shoulder, and sidewalk. It is also recommended to install pedestrian and bicycle amenities concurrently with pedestrian and bicycle improvements.

PEDESTRIAN AND BICYCLE AMENITIES

Pedestrian and bicycle amenities such as lighting, benches, and crosswalks are recommended to be installed adjacent to pedestrian and bicycle facilities to enhance safety, convenience, and comfort for users. These amenities would also improve accessibility and promote the overall usability and attractiveness for non-motorized users.

Lighting

The Needs Assessment report indicates that a significant portion of trips (45%) occur during the evening, nighttime, or early morning hours when lighting may be limited. The SR 21 Corridor Study also highlights the need for pedestrian amenities, including shade trees, benches, and pedestrian-scaled lighting, to improve existing sidewalks. Additionally, implementing traffic calming measures, creating smaller blocks, and narrowing streets can enhance pedestrian safety, aesthetics, and redevelopment opportunities.

Crossings

Additionally, introducing high-visibility crossings is necessary for improving pedestrian safety, accessibility, and visibility, particularly at midblock crossings and uncontrolled intersections on busy or higher-speed roadways. Where warranted, these crossings can be upgraded to include Rectangular Rapid Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs) to further increase safety. RRFBs are pedestrian-activated flashing warning lights used that increase driver awareness at crosswalks, while PHBs are traffic control devices mounted on mast arms to regulate traffic and pedestrian crossings. PHBs are particularly recommended for roads characterized by high vehicle speeds and volumes. These enhancements are particularly important in high-demand areas, especially along SR 21 in Rincon between East Fourth Street and McCall Road, where heavy traffic and numerous points of interest are present. In areas where RRFBs or PHBs are not warranted, other crossing treatments such as medians, midblock crossings, raised crossings, or marked crosswalks may be considered.

Therefore, investing in pedestrian and bicycle amenities is crucial for creating safer and more accessible environments. Improved lighting ensures visibility during low-light hours, reducing the risk of accidents. Benches and shade trees provide comfort and encourage more people to walk or cycle by offering places to rest and protection from the elements. Crosswalks and traffic calming measures increase safety by slowing down vehicle traffic and making it easier for pedestrians and cyclists to navigate urban areas.

Multi-Use Trails

According to Effingham County's 2020-2040 Joint Comprehensive Plan, Effingham County, along with the cities of Guyton, Rincon, and Springfield, plans to improve and expand their existing multi-use greenways. Guyton seeks to extend its current trails, including the Rail-to-Trail project. Rincon intends to create a similar trail utilizing decommissioned rail lines. Springfield plans to extend the Ebenezer Bike Trail and the Highway 119 section of US Bike Route 1, aiming for greater greenway connectivity with Guyton and other county areas through intergovernmental cooperation.

The Multi-Modal Transportation Study for Effingham County, along with the previous Effingham County TMP, recommend multi-use trails along Courthouse Road, Blue Jay Road, and Low Ground Road. A multi-use path along SR 119, where footpaths are currently present, would connect downtown Guyton with downtown Springfield. This path would also provide safe walking and biking access to various institutional, residential, commercial, and recreational destinations along the corridor. The establishment of this multi-use trail would significantly enhance connectivity and safety for pedestrians and cyclists. It would provide a dedicated, safe pathway for non-motorized travel, reducing potential conflicts with vehicular traffic.

Various plans, including the previous TMP, CORE MPO Non-Motorized Plan, and Georgia Hi-Lo Trail Plan, recommend the Hi-Lo Trail. This trail, stretching from Athens to Savannah, would link two trail projects. Of its 250 miles, approximately 28 miles would traverse Effingham County, running north to south from the Screven County line to the Chatham County line.

Bicycle and Pedestrian Connections

Projects identified as bicycle and pedestrian connection projects consist of various infrastructure improvements aimed at improving local bicycle and pedestrian travel, including the addition of designated bicycle lanes along roadways, wider shoulders to accommodate cyclists, and the construction or improvement of sidewalks.

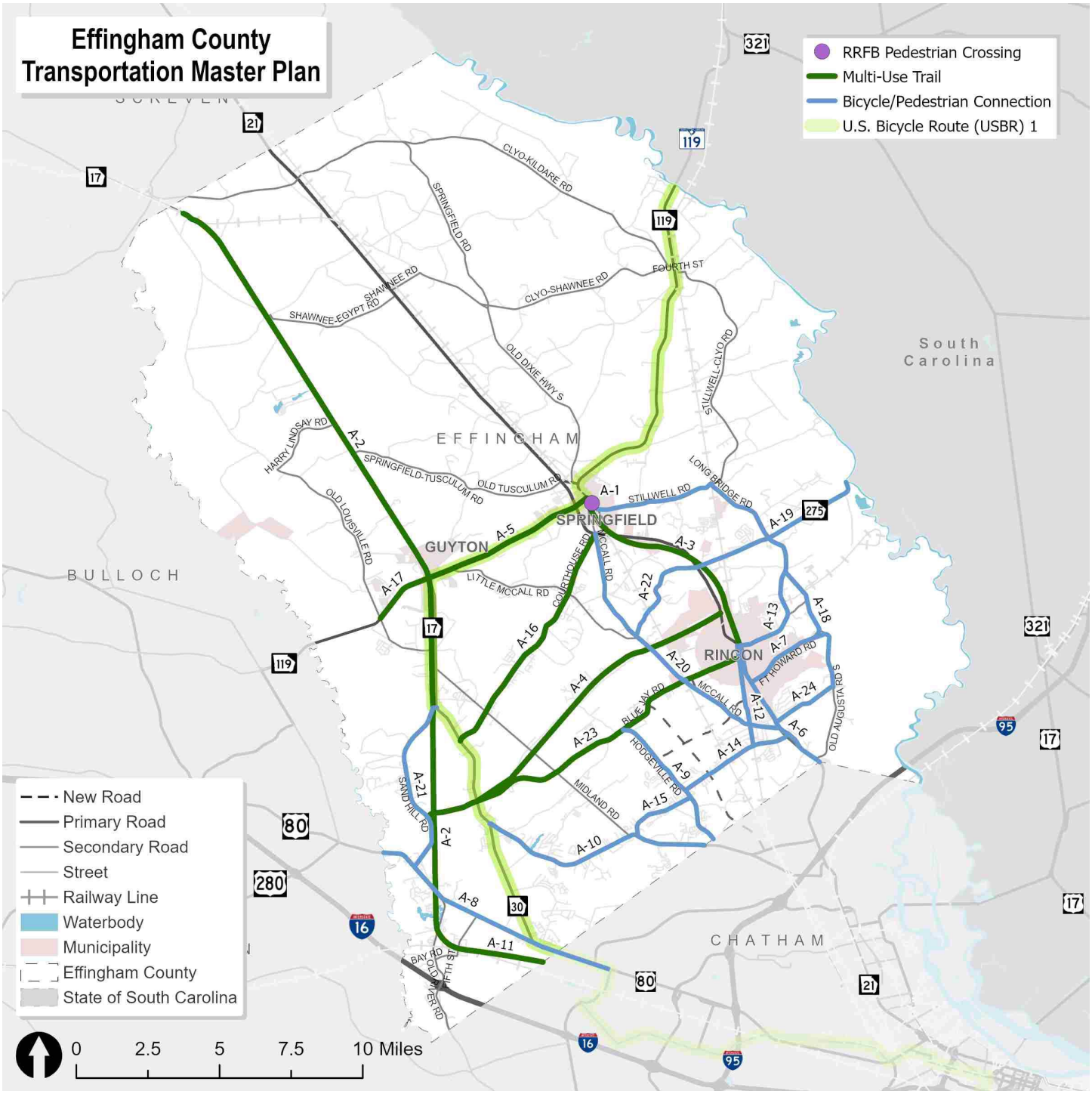
The identification of these projects is particularly crucial in areas where residences, commercial establishments, or social amenities are closely clustered. In such areas, there tends to be a higher demand for non-motorized travel, whether for commuting, recreation, or accessing local amenities, as discussed in the Needs Assessment report. Separating non-motorized users from vehicular traffic through the implementation of bicycle lanes, wide shoulders, and sidewalks is essential for ensuring the safety and convenience of pedestrians and cyclists. By providing dedicated spaces for these users, the risk of accidents and conflicts with vehicles is reduced, making it more comfortable and appealing for people to choose walking or cycling as their mode of transportation.

For example, given the absence of bicycle facilities along SR 21 and pedestrian facilities south of Prosperity Drive/Walmart driveway, as discussed in the Needs Assessment report, constructing bicycle lanes and sidewalks along SR 21 would improve mobility for users traveling to destinations south of Prosperity Drive/Walmart driveway. Between Prosperity Drive/Walmart driveway and McCall Road, there are residential neighborhoods, eateries, urgent care facilities, and other points of interest. Beyond McCall Road, the southern end of SR 21 is characterized by industrial and commercial land uses. Adding bicycle lanes and sidewalks south of Prosperity Drive/Walmart driveway would enhance connectivity to Chatham County, residential, commercial, and industrial areas, and link to the proposed shared-use path along SR 21 in Chatham County. Table 3-8 and Figure 3-8 show the bicycle and pedestrian improvements from the Transportation Master Plan. Chapter 4 includes additional improvements that are included in the Effingham County Bicycle and Pedestrian Plan.

Table 3-8. Bike and Pedestrian Project Recommendations

Project ID	Road/Project Name	Extents	Project Type
A-1	RRFB and Crosswalk at SR 21 BU/Laurel Street	SR 21 BU at Laurel Street	Pedestrian Crossing
A-2	Hi-Lo Trail	Screven County Line to Chatham County Line	Multi-Use Trail
A-3	Rincon-Springfield Bicycle/Pedestrian Connection	SR 119 to 4th St/Rincon-Stillwell Road	Multi-Use Trail
A-4	Low Ground Road Bike/Ped Connection	Blue Jay Road to McCall Road	Multi-Use Trail
A-5	SR 119 Multi-Use Path	SR 17 to N Laurel Street	Multi-Use Trail
A-6	SR 21	4th St/Rincon-Stillwell Road to Chatham County Line	Bicycle Lanes, Sidewalks
A-7	Fort Howard Road	SR 21 to Old Augusta Road	Bicycle Lanes
A-8	US 80	Bulloch County Line to Chatham County Line	Separated Bike Lane, Sidewalks
A-9	Hodgeville Road	Blue Jay Road to Chatham County Line	Wide Shoulder, Sidewalks
A-10	SR 30/Noel C Conaway Road	SR 17 to Chatham County Line	Bicycle Lanes, Sidewalks
A-11	Meldrim-Chatham Trail	Central Avenue to Chatham County Line	Multi-Use Trail
A-12	N. Carolina Ave	SR 21 to Goshen Road	Wide Shoulder, Sidewalks
A-13	4th Street/Rincon-Stillwell Road	SR 21 to Old Augusta Road	Bicycle Lanes, Sidewalks
A-14	Goshen Road	Hodgeville Road to SR 21	Bicycle Lanes, Sidewalks
A-15	Kolic Helmey Road	SR 30/Noel C Conaway Rd to Hodgeville Road	Bicycle Lanes, Sidewalks
A-16	Courthouse Road	SR 17 to SR 21	Multi-Use Trail
A-17	SR 119 Multi-Use Path Extension	Old Louisville Rd to SR 17	Multi-Use Trail
A-18	Old Augusta Road	SR 275 to Chimney Road	Wide Shoulder
A-19	SR 275	SR 21 to South Carolina Line	Bicycle Lanes, Sidewalks
A-20	McCall Road	SR 21 to McCall Road	Wide Shoulder, Sidewalks
A-21	Sand Hill Road	SR 17 to US 80	Bicycle Lanes, Sidewalks
A-22	Rahn Station Road	SR 21 to McCall Road	Wide Shoulder
A-23	Blue Jay Road	Sand Hill Road to SR 21	Multi-Use Trail
A-24	Chimney Road	SR 21 to Old Augusta Road	Bicycle Lanes, Sidewalks
A-25	Stillwell Road/Longbridge Road	South Laurel Street to SR 275	Bicycle Lanes, Sidewalks

Figure 3-8. Bike and Pedestrian Recommended Projects



REGIONAL PROJECTS

In addition to the project recommendations in Effingham County, there are needed improvements outside the County. Integrating regional projects that extend beyond the boundaries of Effingham County can substantially enhance the overall transportation network, offering broader benefits for connectivity and access. This approach improves connections to major interstates like I-16 and I-95, which are critical for regional commerce and mobility. Such enhancements would facilitate easier, faster travel to these interstates, reducing travel time and potentially decreasing traffic congestion within the county.

Projects that extend beyond Effingham County:

- N-18: SR 21 Widening into Chatham County to I-95
- N-19: Blue Jay Road Extension from Sandy Hill Road to US 280
- N-26: US 80 Widening to US 280 Bulloch County

Additional projects along I-95 and I-16 will be performed by GDOT using federal and state funding, administered by GDOT.

Chapter 4: Implementation Plan

The following chapter outlines an implementation strategy for accomplishing infrastructure improvements based on the MTP Update. This includes recommended prioritization, a phasing strategy, and potential funding sources.

Capital Project Recommendations

Following the project identification process, this section outlines a strategy for accomplishing capital projects, both in the short-term and long-term. This includes aspects such as prioritization, funding, and phasing.

Prioritization Framework

With a number of projects recommended across the region, the prioritization process provides a general order for project implementation to maximize benefit to the region. The order resulting from this process is meant to be an advisory process to inform decision-makers on how to develop their work program. Additional considerations, such as local input and funding availability, should also be considered during implementation and can potentially impact the priority of projects recommended in this plan.

METHODOLOGY

In order to provide a general order for implementation, projects identified in this plan were prioritized. Using the prioritization process from the CORE MPO 2050 Metropolitan Transportation Plan (MTP), a prioritization methodology was developed for projects within this plan. [1] This was done so that project prioritization from this plan can be compared to some degree to the project prioritization done in the 2050 MTP. Certain adjustments were made to the CORE MPO prioritization process due to data availability and applicability within the County. Figure 4-1 demonstrates the overall prioritization process.

Assessment Scoring

The first step in prioritization was an assessment of each project's impact within three analyses: needs, resilience, and disadvantaged communities. After receiving a score within each category, these were summed to determine an assessment score for each project. Assessment scores can be compared within each project type to understand prioritization; however, scores cannot be related between project types due to the specificity of assessment criteria.

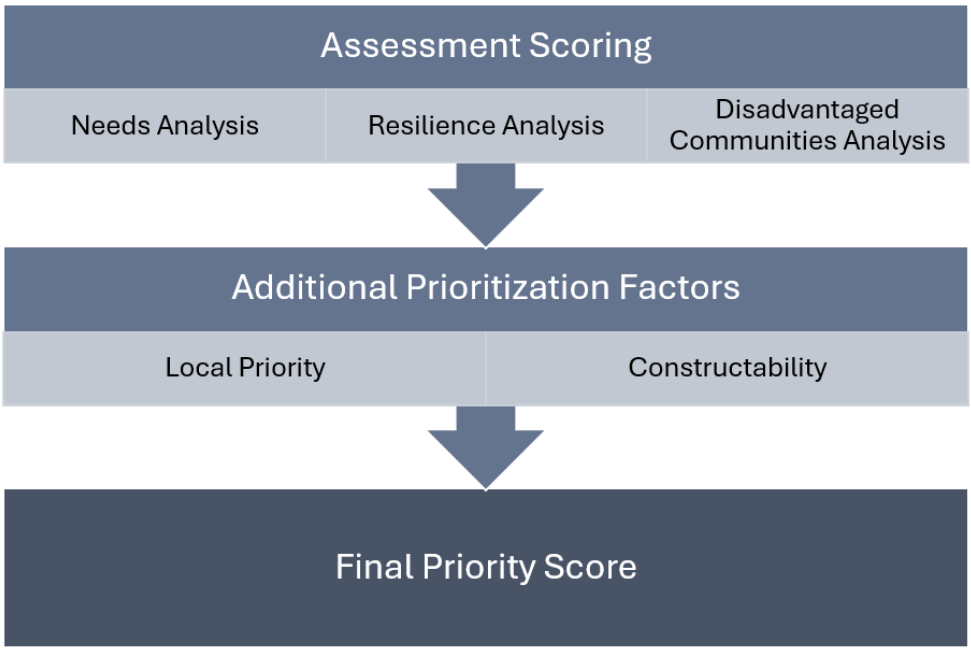
The needs analysis focused on existing and future roadway characteristics, using quantitative data to highlight network function. The resilience analysis used certain criteria to highlight potential impacts to the natural environment. The disadvantaged communities analysis criteria highlight accessibility, connectivity, and safety, particularly to underserved populations. While each project type went through the same scoring analyses to determine a final score, the specific variables assessed within each of these categories differed based on the project type. Scores were assigned for each criterion based on the distribution of data. More information about specific criteria used to score project types is described in the following sections. Data distribution and related scoring values for each criterion are described in Appendix C.

Additional Prioritization Factors

Next, projects were considered in relation to additional prioritization factors: local priority and constructability. These additional pieces of information considered qualitative information coming from local knowledge that detailed priorities at the local level, and certain conditions that affect constructability, such as cost, staff capacity, and necessary intra-agency coordination. Scores for these factors could be positive or negative.

[1] CORE MPO MTP2050

Figure 4-1. Prioritization Process



INTERSECTION PROJECT PRIORITIZATION

SCORING CRITERIA

Table 4-1 outlines the specific criteria and maximum points values that were analyzed to determine prioritization scores for intersection and operational projects.

PRIORITIZATION RESULTS

Based on the final priority score, projects were categorized as Tier 1 (higher priority), Tier 2 (medium priority) and Tier 3 (lower priority). Tier 1 projects represent those scoring in the top 25%, presenting the greatest potential benefit upon implementation. These projects should generally be implemented first. Tier 2 projects are those whose final priority scores are within the middle 50% of the project list. Tier 3 projects are those scoring in the bottom 25% of the project list, presenting the smallest potential benefit to the County. The following map and tables depict the final priority scoring. Detailed scoring tables can be found in Appendix C.

Table 4-1 Intersection Scoring Criteria

	Evaluation Category	Criteria	Description	Highest Possible Score
NEEDS ANALYSIS	System Performance	2050 Existing + Committed Daily Roadway Level of Service	Scores given based on Level of Service results from the Future (2050 E+C) Model.	10
	Safety and Security	Vehicular Crash Rates	Scores given based on 5-year vehicular crash rates.	10
		Freight Crashes	Scores given based on number of freight crashes in the past 5 years.	10
	State of Good Repair	Pavement Conditions	Scores based on average pavement condition.	10
	Accessibility, Mobility, Connectivity	Connection to Freight Generating Land Uses	Scores given to projects near industrial, commercial, and transportation/utility land uses.	10
		Connection from Population Centers to Activity Centers	Scored given to projects near activity centers.	10
RESILIENCE ANALYSIS	Environmental Impact	Floodplain	Scores given to projects that serve floodplain areas.	10
		Sea Level Rise	Scores given to projects that do no impact areas of projected 1.5-foot sea level rise.	10
		Wetland	Scores given to projects that do not impact a wetland area.	10
DISADVANTAGED COMMUNITIES ANALYSIS	Transit Accessibility	Potential Transit Corridor	Scores given to projects along a potential transit corridor.	10
	Bicycle and Pedestrian Accessibility	Zero Vehicle Households	Scores given to projects supporting investment in areas with high percentages of households with zero vehicles.	10
	Connection to Critical Facilities	School Connection	Scores given to projects near schools.	2.5
		Commercial Area Connection	Scores given to projects near commercial areas.	2.5
		High Density Residential Connection	Scores given to projects near high density residential areas.	2.5
		Park Connection	Scores given to projects near parks.	2.5
	Title 4 and Environmental Justice	Low Income	Scores given to projects supporting investment in areas with high percentages of low-income households.	10
	Safety	Median	Scores given to projects that include a median.	10
		Roundabout	Scores given to projects that include a roundabout.	10
		RCUT Intersection	Scores given to projects that include an RCUT intersection.	10
		Pedestrian Crash	Scores given to projects in an area with history of a pedestrian crash.	10

Figure 4-2. Intersection Improvement Prioritization

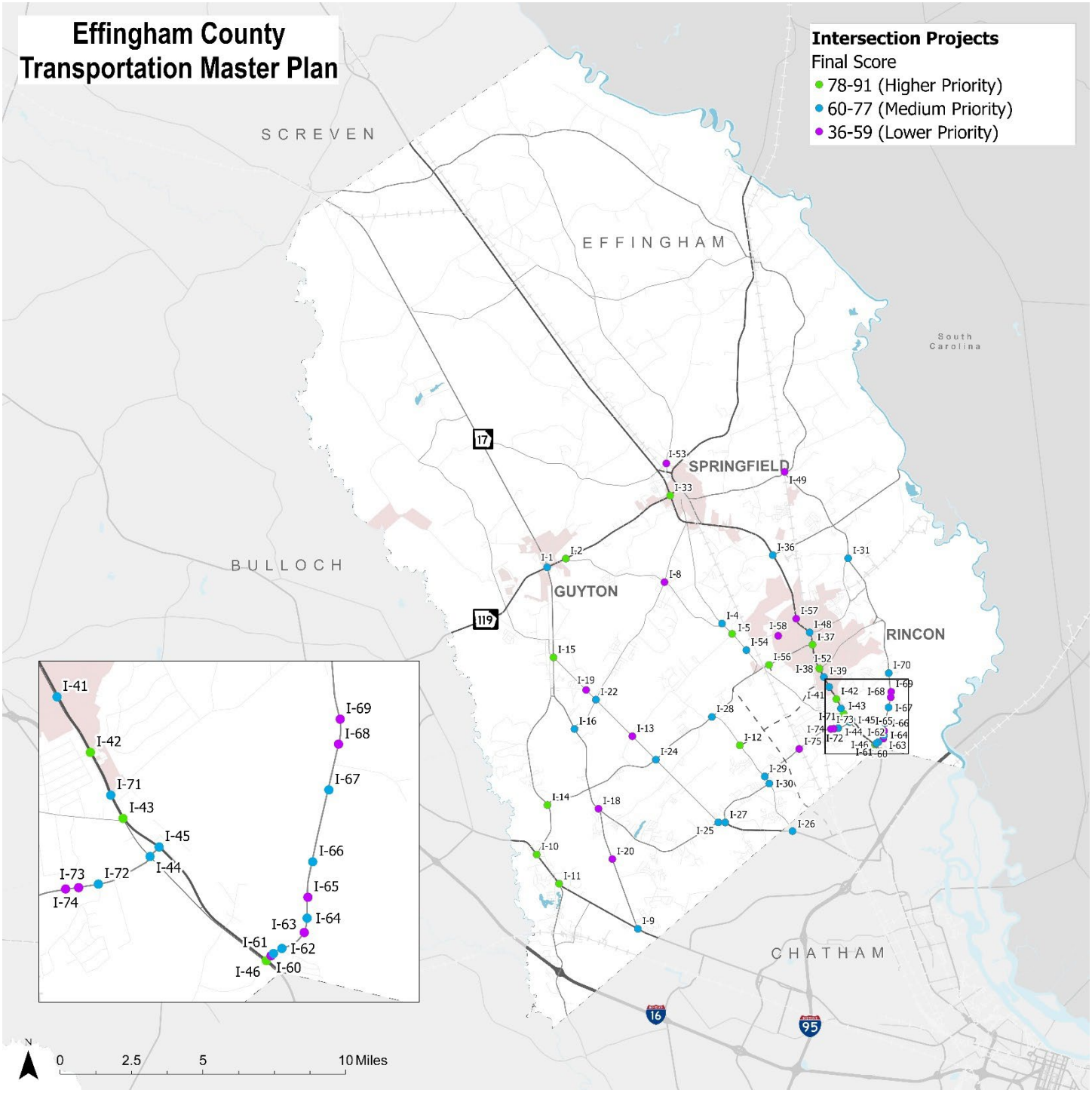


Table 4-2. Intersection Project Prioritization

	Project ID	Project Name	Jurisdiction	Priority Score
	I-38	SR 21 at Fort Howard Road	City of Rincon	91
	I-37	SR 21 at Ninth Street	City of Rincon	89
	I-2	SR 119 at Little McCall Road	Effingham County	87
	I-10	US 80 at Sand Hill Road	GDOT	87
	I-12	Hodgeville Rd at Cedar Ridge Dr/Gateway Parkway	Effingham County	85
	I-46	SR 21 at Old Augusta Road	GDOT	84
	I-43	SR 21 at McCall Road	GDOT	84
	I-42	SR 21 at Westwood Drive/Silver Lake Drive	GDOT	84
	I-33	SR 21 at SR 119	GDOT	84
	I-56	McCall Road at Blue Jay Road/Blandford Road (East)	Effingham County	83
	I-52	SR 21 near Fort Howard Road	City of Rincon	82
	I-15	SR 17 at Midland Road	Effingham County	82
	I-11	US 80/SR 26 at Old River Road	GDOT	82
	I-5	McCall Road at Low Ground Road	Effingham County	80
	I-14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Effingham County	78
Tier 2 – Medium Priority	I-39	SR 21 at Prosperity Drive/Walmart Access	City of Rincon	77
	I-54	McCall Road and New East-West Road/Effingham Power D/W	Effingham County	76
	I-29	Hodgeville Road at Goshen Road	Effingham County	76
	I-24	Blue Jay Road at Midland Road	Effingham County	76
	I-70	Old Augusta Road and Chimney Road	Effingham County	75
	I-45	SR 21 NB at Goshen Road	GDOT	75
	I-28	Blue Jay Road at Hodgeville Road	Effingham County	75
	I-71	SR 21 and Chimney Road	GDOT	74
	I-62	LEO and the Sanctuary	Effingham County	74
	I-30	Hodgeville at Kolic Helmey Road	Effingham County	73
	I-41	SR 21 at Towne Park Drive	City of Rincon	72
	I-22	Midland Road at Courthouse Road	Effingham County	71
	I-27	SR 30 at Kolic Helmey Road	Effingham County/GDOT	69
	I-1	SR 17 at SR 119/Springfield Avenue	GDOT	69
	I-36	SR 21 at SR 275/Ebenezer Road	GDOT	68
	I-64	Old Augusta Road and Exeter/Trailer Yard	Effingham County	67
	I-44	SR 21 SB at Goshen Road	GDOT	67
	I-66	Old Augusta Road and Estes	Effingham County	66
	I-48	SR 21 at 4th Street	GDOT	66
	I-61	Old Augusta Road and South U-Turn Crossover	Effingham County	65

	Project ID	Project Name	Jurisdiction	Priority Score
	I-9	US 80 at SR 30	GDOT	64
	I-25	SR 30/Noel C. Conaway Road at Midland Road	Effingham County/GDOT	63
	I-72	Goshen Road at Huger Street	Effingham County	62
	I-67	Old Augusta Road and Chesterfield/Logistics	Effingham County	62
	I-4	McCall Road at Little McCall Road	Effingham County	62
	I-31	Rincon Stillwell Road at Fort Howard Road	Effingham County	62
	I-26	SR 30 at Hodgeville Road	GDOT	61
	I-16	SR 17 at Courthouse Road	GDOT	60
Tier 3 – Lower Priority	I-63	Old Augusta Road and Northgate	Effingham County	59
	I-20	SR 17 at Jabez Jones Road	GDOT	58
	I-69	Old Augusta Road and Cowan North	Effingham County	57
	I-60	Old Augusta Road and Parkers Driveway	Effingham County	56
	I-57	SR 21 at New East-West Road	City of Rincon	56
	I-65	Old Augusta Road and Cowan South	Effingham County	54
	I-18	SR 17 at SR 30	Effingham County	54
	I-13	Midland Rd at Low Ground Rd	Effingham County	53
	I-68	Old Augusta Road and Cowan Center	GDOT	53
	I-19	SR 17 at Marlow Road	Effingham County	53
	I-74	Goshen Road and Stephens Drive	GDOT	51
	I-73	Goshen Road and Crystal Drive	Effingham County	51
	I-8	Courthouse Road at Little McCall Road	Effingham County	49
	I-53	Springfield Elementary School Driveway	City of Springfield	49
	I-75	Goshen Road and DR-Horton-Longleaf Driveway	Effingham County	44
	I-58	New North-South Road and GIRP Road	City of Rincon	36

ROADWAY AND FREIGHT PROJECT PRIORITIZATION

The following chapter outlines an implementation strategy for accomplishing infrastructure improvements based on the MTP Update. This includes a recommended order of projects and potential funding sources.

SCORING CRITERIA

The following table outlines the specific criteria and maximum points values that were analyzed to determine prioritization scores for roadway and freight projects.

Table 4-3. Roadway and Freight Scoring Criteria

		Criteria	Description	Highest Possible Score
NEEDS ANALYSIS	System Performance	2050 Existing + Committed Daily Roadway Level of Service	Scores given based on Level of Service results from the Future (2050 E+C) Model.	10
		Annual Average Daily Truck Traffic	Scores given based on AADTT.	10
	Safety and Security	Vehicular Crash Rates	Scores given based on 5-year vehicular crash rates.	10
		Freight Crashes	Scores given based on number of freight crashes in the past 5 years.	10
	State of Good Repair	Pavement Conditions	Scores based on average pavement condition.	10
		Bridge Sufficiency	Scores based on conditions of existing bridge structure.	10
	Accessibility, Mobility, Connectivity	Connection to Freight Generating Land Uses	Scores given to projects near industrial, commercial, and transportation/utility land uses.	10
		Connection from Population Centers to Activity Centers	Scored given to projects near activity centers.	10
RESILIENCE ANALYSIS	Environmental Impact	Floodplain	Scores given to projects that serve floodplain areas.	10
		Sea Level Rise	Scores given to projects that do no impact areas of projected 1.5-foot sea level rise.	10
		Wetland	Scores given to projects that do not impact a wetland area.	10
DISADVANTAGED COMMUNITIES ANALYSIS	Transit Accessibility	Potential Transit Corridor	Scores given to projects along a potential transit corridor.	10
	Bicycle and Pedestrian Accessibility	Zero Vehicle Households	Scores given to projects supporting investment in areas with high households with zero vehicles.	10
	Connection to Critical Facilities	School Connection	Scores given to projects near schools.	2.5
		Commercial Area Connection	Scores given to projects near commercial areas.	2.5
		High Density Residential Connection	Scores given to projects near high density residential areas.	2.5
		Park Connection	Scores given to projects near parks.	2.5
	Title 4 and Environmental Justice	Low Income	Scores given to projects supporting investment in areas with low-income households.	10
	Safety	Median	Scores given to projects that include a median.	10
		Roundabout	Scores given to projects that include a roundabout.	10
		RCUT Intersection	Scores given to projects that include an RCUT intersection.	10
		Pedestrian Crash	Scores given to projects in an area with history of a pedestrian crash.	10

PRIORITIZATION RESULTS

Based on the final priority score, projects were categorized as Tier 1 (higher priority), Tier 2 (medium priority) and Tier 3 (lower priority). Tier 1 projects represent those scoring in the top 25%. These projects present the greatest potential benefit to the County and should generally be implemented first. Tier 2 projects are those whose final priority scores are within the middle 50% of the project list. Tier 3 projects are those scoring in the bottom 25% of the project list, presenting the smallest potential benefit to the County. The following map and tables depict the final priority scoring. Detailed scoring tables can be found in Appendix C.

Figure 4-3. Roadway and Freight Project Prioritization

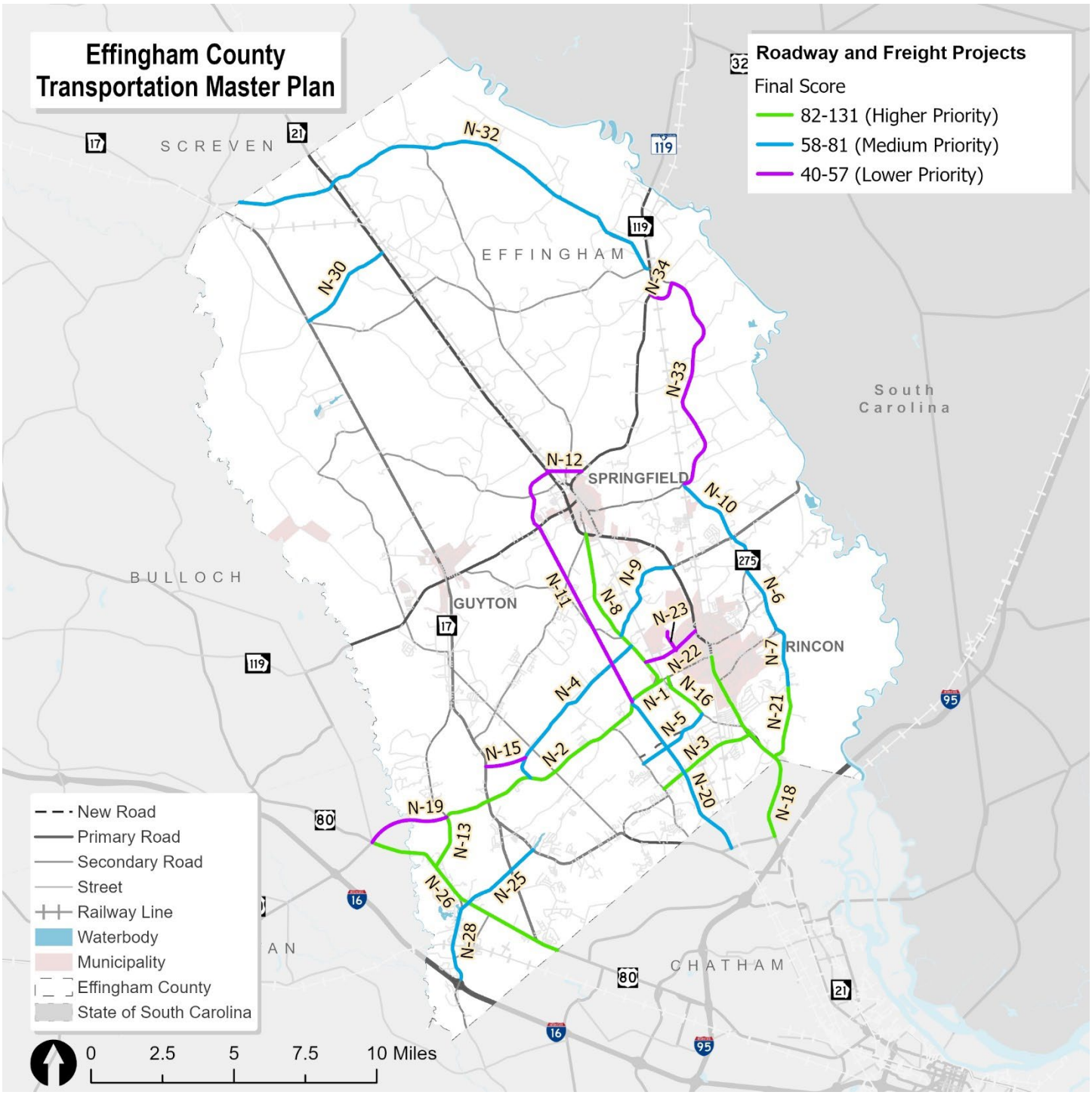


Table 4-4. Roadway and Freight Project Prioritization

	Project ID	Name	Project Type	Priority Score
Tier 1 – Higher Priority	N-18	SR 21 Widening	Widening	131
	N-26	US 80 Widening from SR 17 to US 280	Widening	110
	N-2	Blue Jay Road Upgrades from McCall Rd to Sandhill Rd	Widening and Freight Upgrades	98
	N-13	Sand Hill Road Operational Improvements	Freight Upgrades	94
	N-3	Goshen Road Two Way Left Turn Lane	Roadway Improvements	91
	N-1	Blue Jay Road Upgrades from Effingham Pkwy to McCall Rd	Widening and Freight Upgrades	89
	N-8	McCall Road Widening and Freight Upgrades	Widening and Freight Upgrades	83
	N-16	McCall Road (south) Roadway Realignment	Roadway Improvements	83
	N-21	Old Augusta Road Widening	Widening	82
Tier 2 – Medium Priority	N-6	Old Augusta Road Freight Accommodations – Ebenezer to Ft Howard	Freight Upgrades	81
	N-32	Clyo-Kildare Road Freight Accommodation Improvements	Freight Upgrades	75
	N-25	Jabez Jones Road Extension from SR 30 to US 80	New Roadway	73
	N-4	Low Ground Road Safety Improvements	Roadway Improvements	71
	N-7	Old Augusta Road Widening Phase II	Widening	68
	N-5	OmniTRAX East-West Connector	New Roadway	67
	N-28	Old River Road Widening from North of I-16 to US 80	Further Study	66
	N-10	Long Bridge Road Freight Upgrades	Freight Upgrades	63
	N-20	Effingham Parkway Widening	Widening	62
	N-9	Rahn Station Road Freight Upgrades	New Roadway	62
	N-30	Egypt Ardmore Road Paving	Roadway Improvements	58
Tier 3 – lower Priority	N-19	Blue Jay Road Extension from Sandy Hill Road to US 280	New Roadway	57
	N-11	Effingham Parkway Extension / SR 21 - SR 119 Connector	New Roadway	54
	N-12	Northwest Springfield Bypass SR 119 to SR 21	New Roadway	54
	N-22	Southeastern Roadway Network (SERN) East-West Roadway	New Roadway	53
	N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Roadway Improvements	51
	N-34	Fair Street Freight Accommodation Improvements	Freight Upgrades	46
	N-15	Low Ground Road Extension West	New Roadway	43
	N-23	Southeastern Roadway Network (SERN) North-South Roadway	New Roadway	40

SCORING CRITERIA

The following table outlines the specific criteria and maximum points values that were analyzed to determine prioritization scores for active transportation projects.

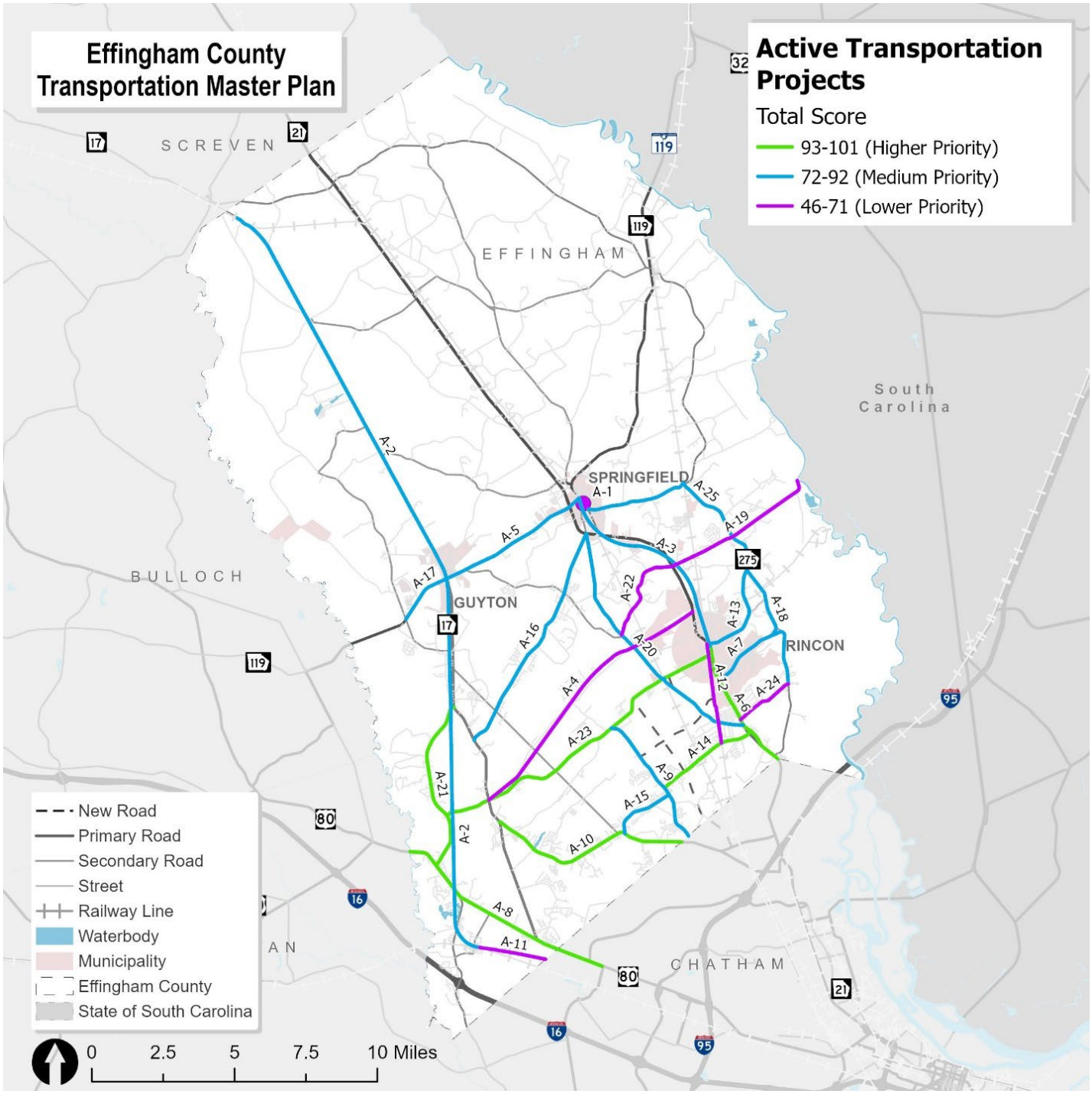
Table 4-5. Active Transportation Scoring Criteria

		Criteria	Description	Highest Possible Score
NEEDS ANALYSIS	System Performance	2050 Existing + Committed Daily Roadway Level of Service	Scores given based on Level of Service results from the Future (2050 E+C) Model.	10
		Annual Average Daily Traffic	Scores given to projects on roads with high traffic volumes.	10
	Safety and Security	Active Mode Crashes	Scores given based on number of bicycle and pedestrian crashes in the past 5 years.	10
	State of Good Repair	Pavement Conditions	Scores based on average pavement condition.	10
	Accessibility, Mobility, Connectivity	Connection from Population Centers to Activity Centers	Scored given to projects near activity centers.	10
RESILIENCE ANALYSIS	Environmental Impact	Floodplain	Scores given to projects that serve floodplain areas.	10
		Sea Level Rise	Scores given to projects that do no impact areas of projected 1.5-foot sea level rise.	10
		Wetland	Scores given to projects that do not impact a wetland area.	10
DISADVANTAGED COMMUNITIES ANALYSIS	Bicycle and Pedestrian Accessibility	Zero Vehicle Households	Scores given to projects supporting investment in areas with high households with zero vehicles.	10
	Connection to Critical Facilities	School Connection	Scores given to projects near schools.	2.5
		Commercial Area Connection	Scores given to projects near commercial areas.	2.5
		High Density Residential Connection	Scores given to projects near high density residential areas.	2.5
		Park Connection	Scores given to projects near parks.	2.5
	Title 4 and Environmental Justice	Low Income	Scores given to projects supporting investment in areas with a high percentage of low-income households.	10

PRIORITIZATION RESULTS

Projects were categorized as Tier 1 (higher priority), Tier 2 (medium priority) and Tier 3 (lower priority) based on their final priority score. Tier 1 projects represent those scoring in the top 25% that should generally be implemented first to provide the greatest benefit to the County. Tier 2 projects are those whose final priority scores are within the middle 50% of the project list. Tier 3 projects are those scoring in the bottom 25% of the project list, presenting the smallest potential benefit to the County. The following map and tables depict the final priority scoring. Detailed scoring tables can be found in Appendix C.

Figure 4-4. Active Transportation Improvement Prioritization



Bicycle and Pedestrian Plan

Effingham County completed a bicycle and pedestrian plan in early 2025. This plan expands the active transportation recommendations from the Transportation Master Plan to provide recommendations for additional multiuse trail connections along nine corridors. These are indicated as projects A-I in Figure 4-5 below. These projects will be considered to have higher priority, similar to the projects shown in green in Figure 4-4.

Figure 4-5. Bicycle and Pedestrian Plan Projects

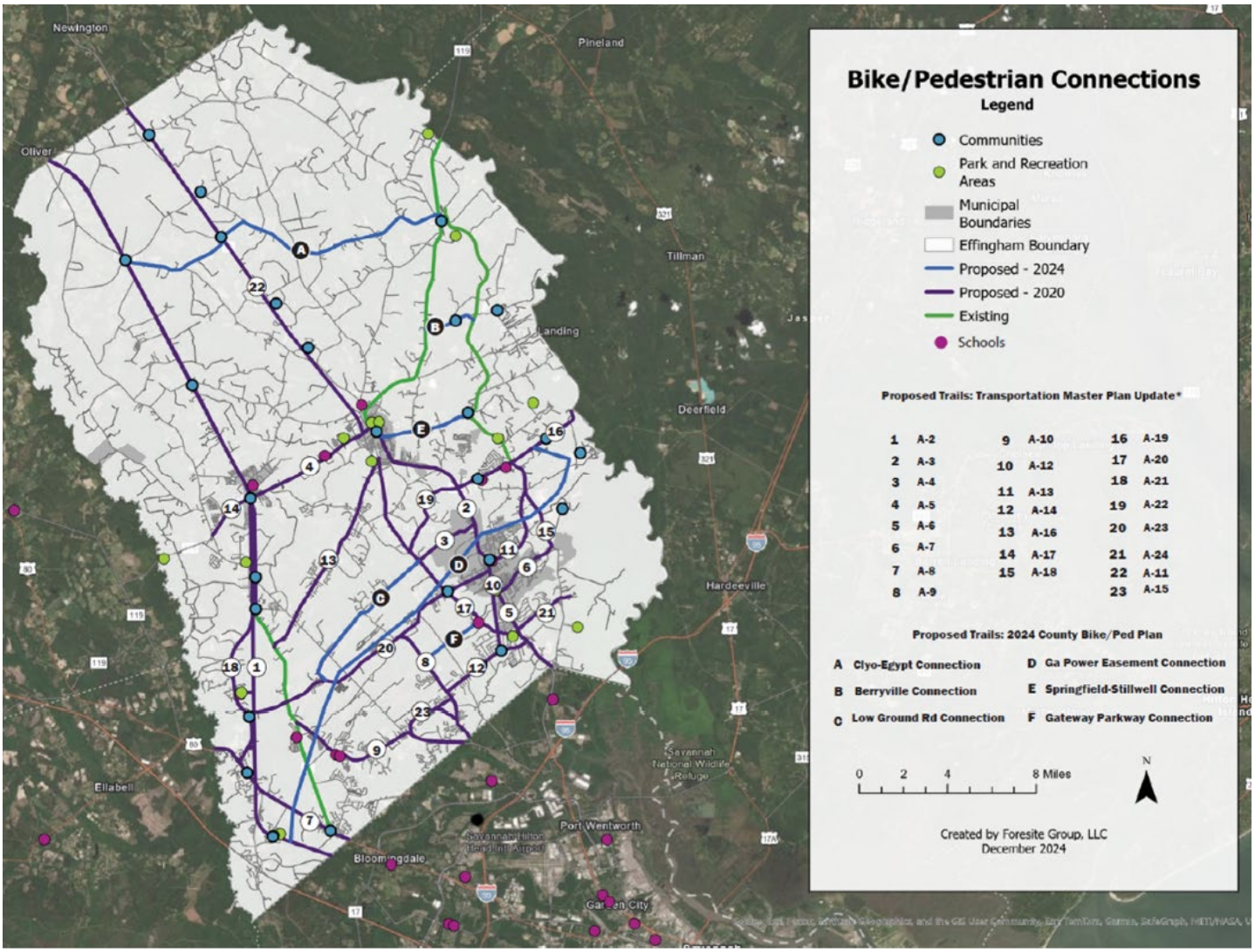


Table 4-6. Bicycle and Pedestrian Plan Project List

2024 Active Effingham Multimodal Mobility Framework Plan			
A	Clyo-Egypt Connection	Hwy-17 N to Hwy-119 N via Shawnee-Egypt Rd and Old Dixie Hwy S	Bike Lane
B	Berryville Connection	Hwy-119 N to Stillwell-Clyo Rd via Berryville Road	Bike Lane
C	Low Ground Road Connection	Blue Jay Road to McCall Road via Low Ground Road	Multi-Use Trail
D	Georgia Power Easement Connection	Ebenezer Road to Hi-Lo Trail via Georgia Power Easement Path	Multi-Use Trail
E	Springfield-Stillwell Connection	South Laurel Street to Long Bridge Road via Stillwell Road	Multi-Use Trail
F	Gateway Parkway Connection	Hodgeville Road to McCall Road via Gateway Parkway	Multi-Use Trail
G	Clyo-Kildare Road Connection	Clyo-Kildare Road	Bike Lane
H	Springfield Road Connection	Springfield Road	Bike Lane
I	Blue Jay to Goshen Road Connection	Blue Jay Road to Goshen Road	Bike Lane

Table 4-7. Active Transportation Improvement Prioritization

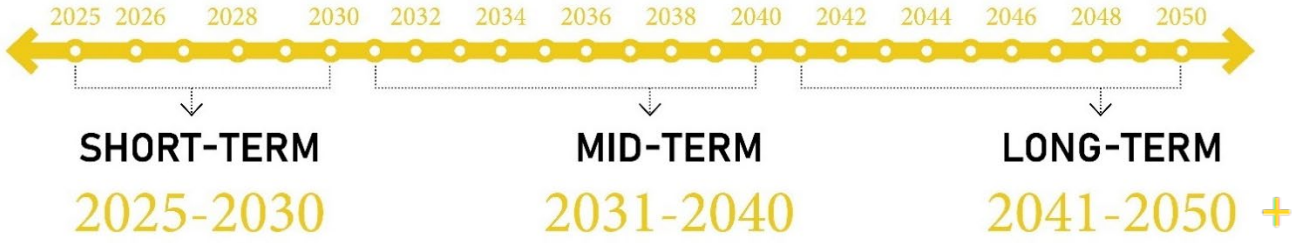
	Project ID	Project Name	Project Type	Priority Score
Tier 1 – Higher Priority	A-14	Goshen Road	Bicycle Lanes, Sidewalks	101
	A-6	SR 21	Bicycle Lanes, Sidewalks	99
	A-23	Blue Jay Road	Multi-Use Trail	99
	A-10	SR 30/Noel C Conaway Road	Bicycle Lanes, Sidewalks	96
	A-8	US 80	Separated Bike Lanes, Sidewalks	94
	A-21	Sand Hill Road	Bicycle Lanes, Sidewalks	93
Tier 2 – Medium Priority	A-7	Fort Howard Road	Bicycle Lanes	91
	A-20	McCall Road	Wide Shoulder, Sidewalks	91
	A-5	SR 119 Multi-Use Path	Multi-Use Trail	90
	A-13	4th Street/Rincon-Stillwell Road	Bicycle Lanes, Sidewalks	90
	A-18	Old Augusta Road	Wide Shoulder	89
	A-2	Hi-Lo Trail	Multi-Use Trail	86
	A-17	SR 119 Multi-Use Path Extension	Multi-Use Trail	80
	A-16	Courthouse Road	Multi-Use Trail	75
	A-25	Stillwell Road/Longbridge Road	Bicycle Lanes, Sidewalks	75
	A-9	Hodgeville Road	Wide Shoulder, Sidewalks	73
	A-15	Kolic Helmey Road	Bicycle Lanes, Sidewalks	73
	A-3	Rincon-Springfield Bicycle/Pedestrian Connection	Multi-Use Trail	72
	A-12	N. Carolina Ave	Wide Shoulder, Sidewalks	72
Tier 3 – Lower Priority	A-19	SR 275	Bicycle Lanes, Sidewalks	71
	A-1	RRFB and Crosswalk at SR 21 BU/Laurel Street	Pedestrian Crossing	65
	A-24	Chimney Road	Bicycle Lanes, Sidewalks	65
	A-4	Low Ground Road Bike/Ped Connection	Multi-Use Trail	63
	A-22	Rahn Station Road	Wide Shoulder	57
	A-11	Meldrim-Chatham Trail	Multi-Use Trail	46

Note: Projects “A” through “I” shown in Figure 4.6 and identified in the Bicycle and Pedestrian Plan are considered higher priority projects and will be indicated as short to mid-term projects.

PHASING PLAN

The following phasing plan outlines funding allocation until 2050 and identifies projects for the short-, mid-, and long- term implementation. Funding allocation from 2025 - 2050 and specific project phasing is described in the following sections. The implementation strategy is organized by the phasing bands detailed in Figure 4-7.

Figure 4-7. Phasing Timeline



FUNDING ALLOCATION

The recommended transportation projects were assigned to one of the three timeframes based on the priority of the project and the amount of potential future funding that could be available. Future funding and cost estimates are in 2024 dollars. Available funding for capital improvements is estimated based on current SPLOST total local funding per year. It assumes a future state and federal match of 40% overall. This is based on an assumed extrapolation of current funding levels and does not reflect detailed economic forecasting.

POTENTIAL FUNDING AVAILABILITY (2025 – 2050)

Table 4-8. Total Potential Funding (in millions)

	Local Funds	State/Federal Funds (40%)	Total Potential Funding
Intersection	$113	$45	$158
Roadway/Freight	$382	$198	$580
Active Mode	$400	$0	$400
Total	$895	$243	$1.138 billion

Table 4-9. Estimated Short-Term Funding (in million) – 2025-2030

	Local Funds	State/Federal Funds (40%)	Total Potential Funding
Intersection	$43	$17	$60
Roadway/Freight	$59	$24	$83
Active Mode	$18	$0	$18
Total	$120	$41	$161

Table 4-10. Estimated Mid-Term Funding (in millions) – 2031-2040

	Local Funds	State/Federal Funds (40%)	Total Potential Funding
Intersection	$50	$20	$70
Roadway/Freight	$154	$62	$216
Active Mode	$36	$0	$36
Total	$240	$82	$322

*Table 4-11. Estimated Long-Term Funding (in millions) – 2041-2050+**

	Local Funds	State/Federal Funds (40%)	Total Potential Funding
Intersection	$20	$8	$28
Roadway/Freight	$169	$112	$281
Active Mode	$346	$0	$346
Total	$535	$120	$655

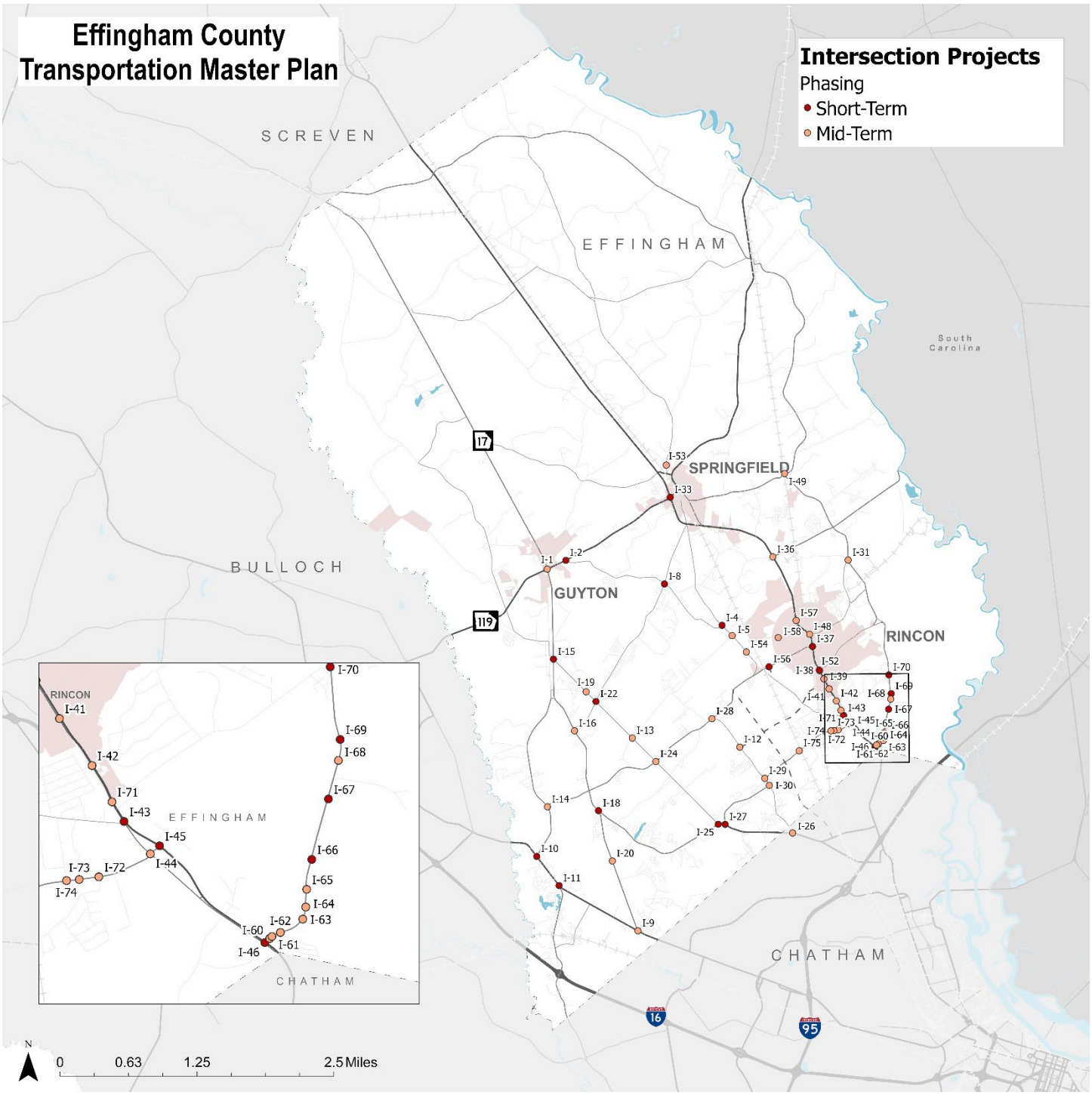
**Funding for long-term improvements is based on funding needed to accomplish project list and may extend beyond 2050.*

PHASING PROJECT TYPE

INTERSECTION PHASING

Phasing for intersection projects considers project priority and the 2023 TSPLOST project list in relation to funding allocation to determine a phased strategy of implementation. This allows the County to plan for project implementation based on available funding. Intersection project phasing is shown in Figure 4-8.

Figure 4-8. Intersection Project Phasing



***I-72, I-73, I-74, and I-75 have been incorporated into Goshen Road improvement projects N-3.*

Short-Term Intersection Projects

Intersection projects identified for the short-term were included in this phase because of their higher priority score or their inclusion in the 2023 TSPLOST project list. Table 4-11 shows short-term intersection projects, as well as the total cost associated with these projects.

Table 4-12. Short-Term Intersection Projects

ID	Project Name	Project Type	Jurisdiction	Priority Tier	Total Cost
I-38	SR 21 at Fort Howard Road	Lane Improvements	City of Rincon	1	$740,278
I-37	SR 21 at Ninth Street	Lane Improvements	City of Rincon	1	$333,868
I-10	US 80 at Sand Hill Road	Roundabout Installation (Multilane)	GDOT	1	$6,118,000
I-2	SR 119 at Little McCall Road	Roundabout Installation	Effingham County	1	$4,370,000
I-33	SR 21 at SR 119	Lane Improvements	GDOT	1	$384,560
I-43	SR 21 at McCall Road	Lane Improvements	GDOT	1	$1,033,068
I-46	SR 21 at Old Augusta Road	Lane Improvements	GDOT	1	$2,307,360
I-56	McCall Road at Blue Jay Road/Blandford Road (East)	Roundabout Installation	Effingham County	1	$4,370,000
I-15	SR 17 at Midland Road	Roundabout Installation	Effingham County	1	$4,370,000
I-11	US 80/SR 26 at Old River Road	Traffic Signal Installation	GDOT	1	$6,992,000
I-52	SR 21 near Fort Howard Road	Other Improvements	City of Rincon	1	$961,400
I-45	SR 21 NB at Goshen Road	Lane Improvements	GDOT	2	$1,994,468
I-22	Midland Road at Courthouse Road	Roundabout Installation	Effingham County	2	$4,370,000
I-66	Old Augusta Road and Estes	Roundabout Installation (Multilane)	Effingham County	2	$6,118,000
I-27	SR 30 at Kolic Helmey Road	Roundabout Installation (Multilane)	Effingham County/GDOT	2	$6,118,000
I-67	Old Augusta Road and Chesterfield/Logistics	Roundabout Installation (Multilane)	Effingham County	2	$6,118,000
I-70	Old Augusta Road and Chimney Road	Roundabout Installation	Effingham County	2	$4,370,000
I-25	SR 30/Noel C. Conaway Road at Midland Road	Roundabout Installation	Effingham County/GDOT	2	$4,719,600
I-4	McCall Road at Little McCall Road	Realignment and Roundabout Installation	Effingham County	2	$5,812,100
I-69	Old Augusta Road and Cowan North	Roundabout Installation	Effingham County	3	$4,370,000
I-18	SR 17 at SR 30	Lane Improvements	Effingham County	3	$1,048,800
I-8	Courthouse Road at Little McCall Road	Other Improvements	Effingham County	3	$22,239
Total Cost					**$77,041,741**

Mid-Term Intersection Projects

The remaining intersection projects identified in this plan are included in the mid-term phasing plan. This includes remaining high priority projects, as well as medium and lower priority projects. All midterm intersection projects are shown in Table 4-12.

Table 4-13. Mid-Term Intersection Projects

ID	Project Name	Project Type	Jurisdiction	Priority Tier	Total Cost
I-42*	SR 21 at Westwood Drive/Silver Lake Dr*	Other Improvements	GDOT	1	$632,776
I-5	McCall Road at Low Ground Road	Roundabout Installation	Effingham County	1	$4,370,000
I-12	Hodgeville Rd at Cedar Ridge Dr/Gateway Parkway	Roundabout Installation	Effingham County	1	$4,370,000
I-14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Roundabout Installation	Effingham County	1	$4,370,000
I-39	SR 21 at Prosperity Drive/Walmart Access	Lane Improvements	City of Rincon	2	$333,868
I-24	Blue Jay Road at Midland Road	Roundabout Installation	Effingham County	2	$4,370,000
I-29	Hodgeville Road at Goshen Road	Roundabout Installation	Effingham County	2	$4,370,000
I-54	McCall Road and New East-West Road/Effingham Power Driveway	Roundabout Installation	Effingham County	2	$4,370,000
I-28	Blue Jay Road at Hodgeville Road	Roundabout Installation	Effingham County	2	$4,370,000
I-71	SR 21 and Chimney Road	Other Improvements	GDOT	2	$874,000
I-62	LEO and the Sanctuary	Other Improvements	Effingham County	2	$874,000
I-30	Hodgeville at Kolic Helmey Road	Roundabout Installation	Effingham County	2	$4,370,000
I-41	SR 21 at Towne Park Drive	Lane Improvements	City of Rincon	2	$333,868
I-1	SR 17 at SR 119/Springfield Avenue	Lane Improvements	GDOT	2	$349,600
I-36	SR 21 at SR 275/Ebenezer Road	Other Improvements	GDOT	2	$22,239
I-44	SR 21 SB at Goshen Road	Lane Improvements	GDOT	2	$349,600
I-64	Old Augusta Road and Exeter/Trailer Yard	Roundabout Installation (Multilane)	Effingham County	2	$6,118,000
I-48	SR 21 at 4th Street	Traffic Signal Installation	GDOT	2	$961,400
I-61	Old Augusta Road and South U-Turn Crossover	Other Improvements	Effingham County	2	$735,908
I-9	US 80 at SR 30	Lane Improvements	GDOT	2	$349,600
I-31	Rincon Stillwell Road at Fort Howard Rd	Roundabout Installation	Effingham County	2	$4,370,000
I-72**	Goshen Road at Huger Street**	Lane Improvements	Effingham County	2	Part of N-3
I-26	SR 30 at Hodgeville Road	Roundabout Installation	GDOT	2	$5,069,200
I-16	SR 17 at Courthouse Road	Lane Improvements	GDOT	2	$648,508
I-63	Old Augusta Road and Northgate	Other Improvements	Effingham County	3	$192,280
I-20	SR 17 at Jebez Jones Road	Roundabout Installation	GDOT	3	$4,719,600
I-13	Midland Rd at Low Ground Rd	Roundabout Installation	Effingham County	3	$4,370,000
I-57	SR 21 at New East-West Road	Traffic Signal Installation	City of Rincon	3	$611,800
I-60	Old Augusta Road and Parkers Driveway	Other Improvements	Effingham County	3	$192,280
I-65	Old Augusta Road and Cowan South	Other Improvements	Effingham County	3	$192,280
I-19	SR 17 at Marlow Road	Lane Improvements	Effingham County	3	$699,200
I-68	Old Augusta Road and Cowan Center	Other Improvements	GDOT	3	$192,280
I-73**	Goshen Road and Crystal Drive**	Lane Improvements	Effingham County	3	Part of N-3
I-74**	Goshen Road and Stephens Drive**	Lane Improvements	GDOT	3	Part of N-3
I-49	Stillwell Rd at Long Bridge Rd	Other Improvements	Effingham County	3	$1,223,600
I-53	Springfield Elementary School Driveway	Lane Improvements	City of Springfield	3	$1,945,524
I-75**	Goshen Road and DR-Horton-Longleaf Driveway**	Lane Improvements	Effingham County	3	Part of N-3
I-58	New North-South Road and GIRP Road	Other Improvements	City of Rincon	3	$8,740
Total Cost					**$71,330,151**

**I-42 will be coordinated with SR 21 Project*

***I-72, I-73, I-74, and I-75 have been incorporated into Goshen Road improvement projects N-3.*

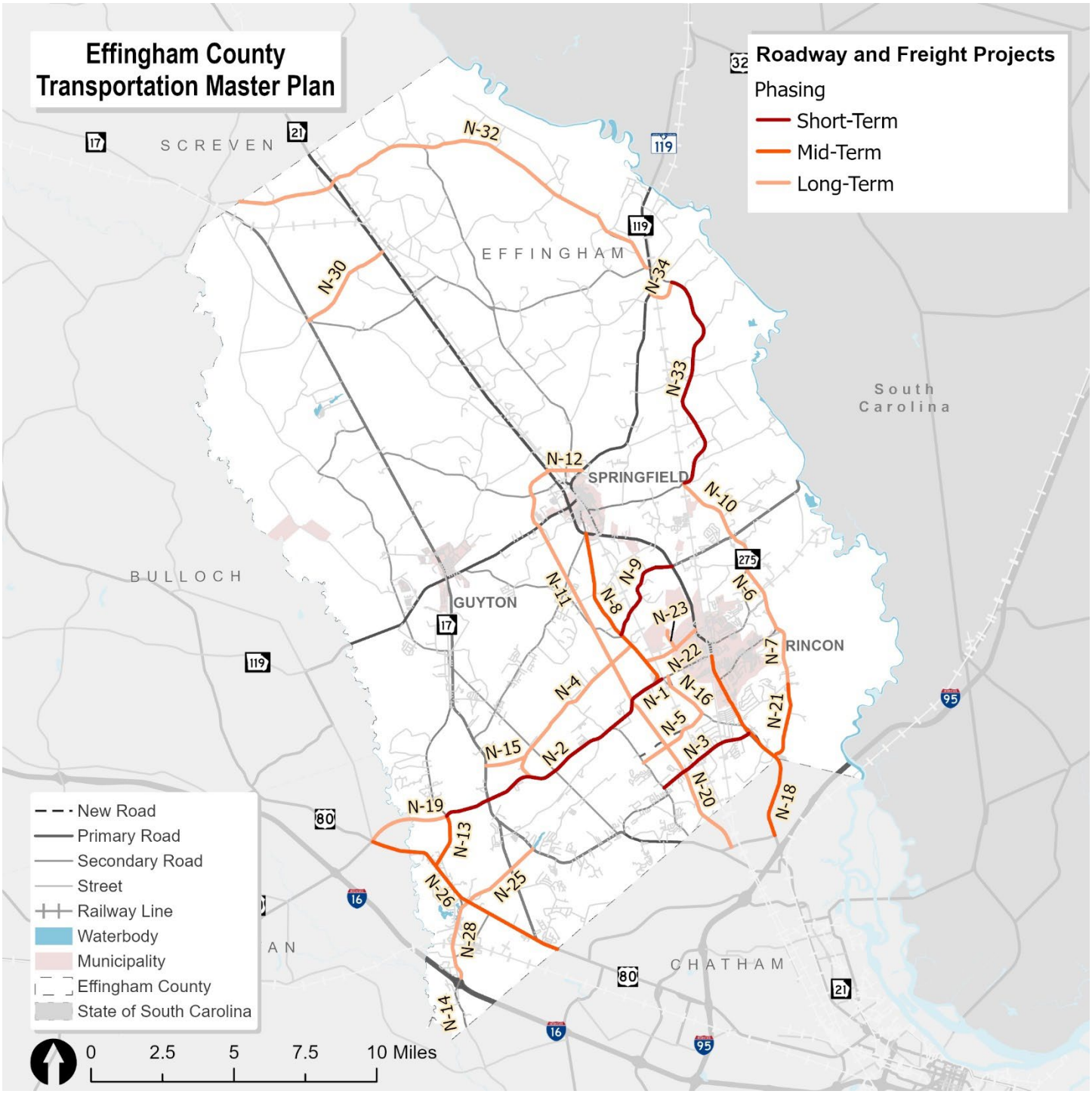
Long-Term Intersection Projects

There are no intersection projects slated for long-term implementation.

ROADWAY AND FREIGHT PHASING

The overall phasing plan for roadway and freight projects is depicted in Figure 4-9. Projects are identified as short-, mid-, and long-term based on funding allocation. Project lists for each phase are described below.

Figure 4-9. Roadway and Freight Project Phasing



Note: Additional projects along I-95 and I-16 will be performed by GDOT using federal and state funding, administered by GDOT.

Short-Term Roadway and Freight Projects

Roadway and freight projects identified for the short-term phasing are those included in the 2023 TSPLOST project list. Table 4-14 shows short-term projects.

Table 4-14. Short-Term Roadway and Freight Projects

ID	Project Name	Project Type	Priority Tier	Total Cost
N-1	Blue Jay Road from Effingham Parkway to McCall Rd	Widening, Multiuse Path, and Freight Upgrades	1	$16,730,545
N-2	Blue Jay Road from McCall Rd to Sandhill Rd	Widening, Multiuse Path, and Freight Upgrades	1	$24,270,543
N-3	Goshen Road Two Way Left Turn Lane	Roadway Improvements	1	$17,927,488
N-9	Rahn Station Road Freight Upgrades	Freight Upgrades	2	$1,911,043
N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Roadway Improvements	3	$4,643,183
Total Cost				**$65,482,802**

Mid-Term Roadway and Freight Projects

The roadway and freight projects shown in Table 4-15 highlight mid-term projects, which were included because of their higher priority.

Table 4-15. Mid-Term Roadway and Freight Projects

ID	Project Name	Project Type	Priority Tier	Total Cost
N-18	SR 21 Widening	Widening	1	$37,668,956
N-26	US 80 Widening from SR 17 to US 280	Widening	1	$67,466,944
N-8	McCall Road Widening and Freight Upgrades	Widening and Freight Upgrades	1	$47,818,111
N-21	Old Augusta Road Widening	Widening	1	$23,710,623
N-16	McCall Road (south) Roadway Realignment	Roadway Improvements	1	$3,277,500
N-13	Sand Hill Road Operational Improvements	Freight Upgrades	1	$2,064,825
Total Cost				**$182,006,959**

Long-Term Roadway and Freight Projects

The remaining roadway and freight projects are included in the long-term phasing plan. This accounts for the majority of medium and lower priority projects, shown in Table 4-16.

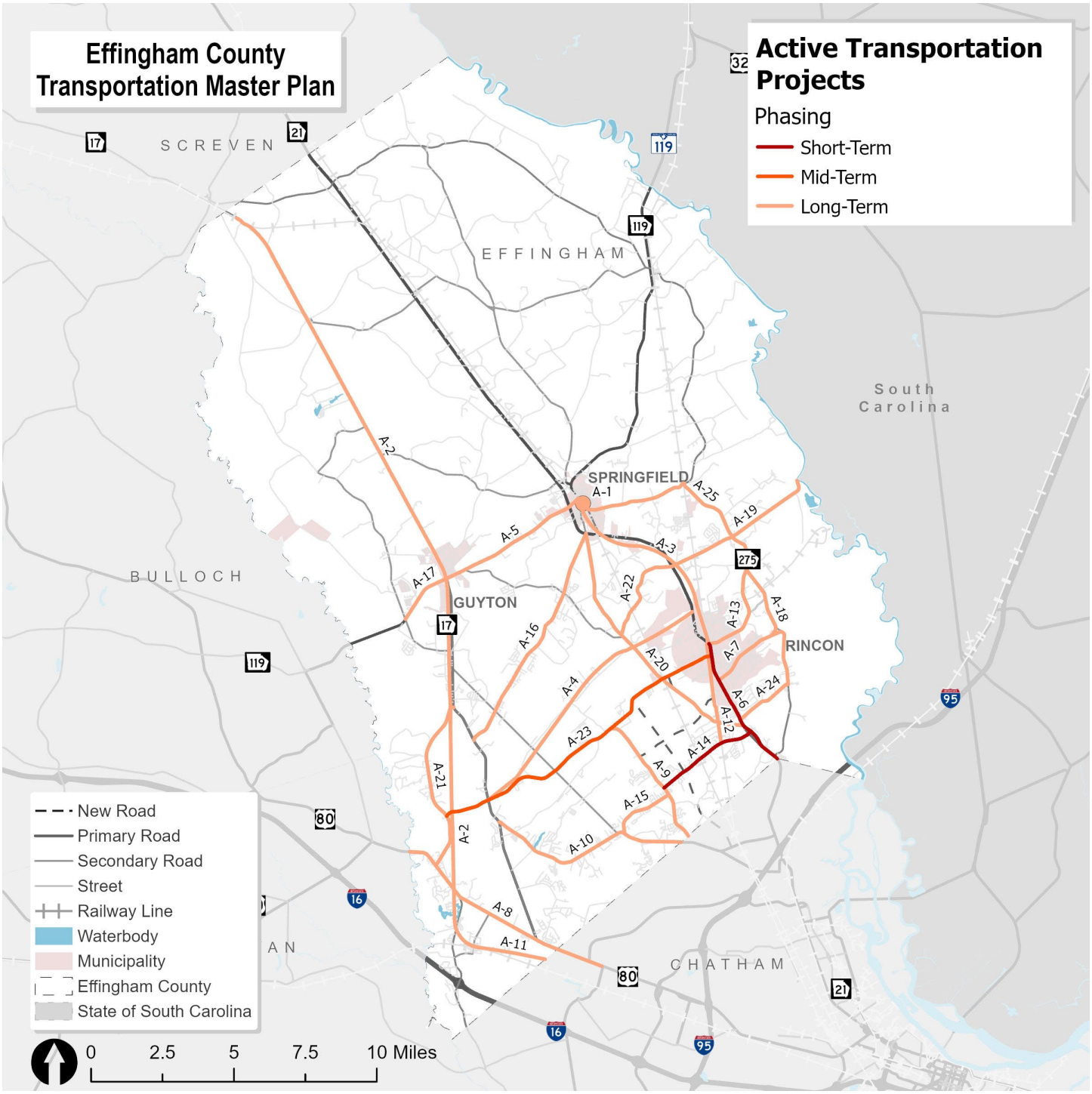
Table 4-16. Long-Term Roadway and Freight Projects

ID	Project Name	Project Type	Priority Tier	Total Cost
N-6	Old Augusta Road Freight Accommodations	Freight Upgrades	2	$4,085,950
N-32	Clyo-Kildare Road Freight Accommodation Improvements	Freight Upgrades	2	$12,253,796
N-25	Jabez Jones Road Extension from SR 30 to US 80	New Roadway	2	$12,851,802
N-4	Low Ground Road Safety Improvements	Roadway Improvements	2	$437,000
N-7	Old Augusta Road Widening Phase II	Widening	2	$18,352,890
N-5	OmniTRAX East-West Connector	New Roadway	2	$12,075,800
N-28	Old River Road Widening from North of I-16 to US 80	Further Study	2	$123,050
N-10	Long Bridge Road Freight Upgrades	Freight Upgrades	2	$2,882,680
N-20	Effingham Parkway Widening	Widening	2	$33,507,717
N-11	Effingham Parkway Extension / SR 21 - SR 119 Connector	New Roadway	3	$40,618,276
N-19	Blue Jay Road Extension from Sand Hill Road to US 280	New Roadway	3	$12,751,039
N-22	Southeastern Roadway Network (SERN) East-West Roadway	New Roadway	3	$31,567,500
N-30	Egypt Ardmore Road Paving	Roadway Improvements	3	$3,595,340
N-12	Northwest Springfield Bypass - SR 119 to SR 21	New Roadway	3	$5,331,400
N-34	Fair Street Freight Accommodation Improvements	New Roadway	3	$629,876
N-15	Low Ground Road Extension West	New Roadway	3	$6,280,450
N-23	Southeastern Roadway Network (SERN) North-South Roadway	New Roadway	3	$3,284,780
Total Cost				**$200,629,350**

ACTIVE TRANSPORTATION PHASING

Phasing of active transportation projects suggests a strategy for implementation of projects based on the determined funding allocation. This strategy allows for funding of those projects identified as higher priority throughout the County. Figure 4-10 depicts all active transportation projects and their identified phase.

Figure 4-10. Active Transportation Project Phasing



Short to Mid-Term Active Transportation Projects

The active transportation with the highest priority scores are included in the short and Mid-term phasing plan, shown in Table 4-17.

Table 4-17. Short-and Mid-Term Active Transportation Projects

ID	Project Name	Project Type	Priority Tier	Total Cost
A-14	Goshen Road	Bicycle Lanes, Sidewalks	1	with roadway project
A-23	Blue Jay Road	Multi-Use Trail	1	with roadway project
A-6	SR 21	Bicycle Lanes, Sidewalks	1	with GDOT roadway project

Mid-Term Active Transportation Projects

The project with the next highest priority is included in the mid-term phasing plan. Limited funding allocated for active transportation projects restricts the number of projects included in the short- and mid-term phasing plans. These are the projects from the Bicycle and Pedestrian Plan.

Table 4-18. Mid-Term Active Transportation Projects

ID	Project Name	Project Type	Priority Tier
A	Clyo-Egypt Connection	Bike Lane	1
B	Berryville Connection	Bike Lane	1
C	Low Ground Road Connection	Multi-use Trail	1
D	Georgia Power Easement Connection	Multi-use Trail	1
E	Springfield-Stillwell Connection	Multi-use Trail	1
F	Gateway Parkway Connection	Multi-use Trail	1
G	Clyo-Kildare Road Connection	Bike Lane	1
H	Springfield Road Connection	Bike Lane	1
I	Blue Jay to Goshen Road	Bike Lane	1

Long-Term Active Transportation Projects

The majority of active transportation projects are included in the long-term phasing, shown in Table 4-19, a result of a large number of identified projects and limited funding for this project type.

Table 4-19. Long-Term Active Transportation Projects

ID	Project Name	Project Type	Priority Tier	Total Cost
A-10	SR 30/Noel C Conaway Road	Bicycle Lanes, Sidewalks	1	$26,982,128
A-8	US 80	Wide Shoulder, Sidewalks	1	$29,926,109
A-21	Sand Hill Road	Bicycle Lanes, Sidewalks	1	$23,617,577
A-7	Fort Howard Road	Bicycle Lanes	2	$2,522,801
A-20	McCall Road	Wide Shoulder, Sidewalks	2	$34,762,650
A-5	SR 119 Multi-Use Path	Multi-Use Trail	2	$13,598,041
A-13	4th Street/Rincon-Stillwell Road	Bicycle Lanes, Sidewalks	2	$14,680,490
A-18	Old Augusta Road	Wide Shoulder	2	$5,548,152
A-2	Hi-Lo Trail	Multi-Use Trail	2	$21,106,051
A-17	SR 119 Multi-Use Path Extension	Multi-use Trail	2	$17,345,753
A-16	Courthouse Road	Multi-use Trail	2	$6,972,247
A-25	Stillwell Road/Longbridge Road	Bicycle Lanes, Sidewalks	2	$23,302,151
A-9	Hodgeville Road	Wide Shoulder, Sidewalks	2	$18,710,941
A-15	Kolic Helmey Road	Bicycle Lanes, Sidewalks	2	$31,012,579
A-3	Rincon-Springfield Bicycle/Pedestrian Connection	Trail Alignment-Further Study	2	$123,050
A-12	N. Carolina Ave	Wide Shoulder, Sidewalks	3	$13,909,447
A-19	SR 275	Bicycle Lanes, Sidewalks	3	$3,395,227
A-1	RRFB and Crosswalk at SR 21 BU/Laurel Street	Pedestrian Crossing	3	$69,920
A-24	Chimney Road	Bicycle Lanes, Sidewalks	3	$9,178,048
A-4	Low Ground Road Bike/Ped Connection	Multi-Use Trail-Further Study	3	$123,050
A-22	Rahn Station Road	Wide Shoulder	3	$3,487,697
A-11	Meldrim-Chatham Trail	Multi-use Trail	3	$2,638,256
Total Cost				**$303,012,365**

FUNDING SOURCES

Federal, state, and local funding sources could be utilized for transportation infrastructure improvements throughout Effingham County. The following sections describe sources at each level in order to inform decision making.

FEDERAL FUNDING SOURCES AND GRANT PROGRAMS

The Bipartisan Infrastructure Law[2] (BIL) authorized $550 billion to be invested in the nation's infrastructure, with #350 billion going specifically towards investment in highway facilities and programs through fiscal years 2022 to 2026. This portion of BIL funding is utilized for a number of new highway programs, with a focus on safety, resilience, carbon reduction, bridges, elective vehicle charging infrastructure, reconnecting communities, and wildlife crossings. The following programs are included in the funding for transportation network development.

National Highway System (NHS) Funds

These funds are closely tied to GDOT's performance targets for the statewide NHS network. Consequently, they are often directed towards major interstate facilities.

[2] https://www.fhwa.dot.gov/bipartisan-infrastructure-law/docs/BIL_overview_update_2022-11-8b.pdf

The National Highway Performance Program (NHPP) provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS.

National Highway Freight Program

Managed by state DOTs, this program allocates funds to states by formula, with the objective of enhancing the efficient movement of freight on the National Highway Freight Network. It now allows states to use up to 30% of funds on freight intermodal or rail projects, instead of the previous standard of 10%. It also includes the rehabilitation of lock and dam and marine highway corridors that are part of the national highway freight network as eligible projects for funding.

Highway Safety Improvement program (HSIP)

Allows for non-infrastructure safety projects such as those related to emergency services and safe routes to schools for funding, as well as expands the definition of safety improvements to encompass rail-highway grade crossing separations, traffic control devices to pedestrians, and roadway improvements that separate vehicles from pedestrians and cyclists.

Railway Highway Crossing Program clarifies that funds are eligible for reducing pedestrian injuries and fatalities from trespassing at crossings. Funds for this are set aside from the HSIP; the annual set-aside will be $245 million from FY 2022 through FY 2026.

Surface Transportation Block Grand (STBG) Funds

This federal program offers substantial flexibility, allowing for the preservation and improvement of conditions and performance on Federal-aid highways and bridges. Eligible projects encompass non-motorized transportation facilities, transit capital projects, and public bus terminals and facilities.

STBG - Transportation Alternatives Program: Within the broader STBG program, funds are set aside specifically for smaller-scale transportation projects, including pedestrian and bicycle facilities, recreational trails, and safe routes to school initiatives.

Metropolitan Planning Program (MPP)

Formerly known as Metropolitan Planning (PL) funds, the MPP provides planning assistance from the Federal Highway Administration (FHWA) to GDOT, which then channels these funds to MPOs for planning programs.

Promoting Resilient Operations for Transformative, Efficient, and Cost-saved Transportation (PROTECT)

A newly introduced formula program administered by FHWA, PROTECT focuses on promoting resilience planning, community resilience, evacuation routes, and improvements to at-risk coastal infrastructure. It offers a higher federal share if the state develops a resilience improvement plan incorporated into its long-range transportation plan.

National Electric Vehicle Infrastructure Formula Program (NEVI)

Another recently introduced FHWA formula program, this initiative seeks to deploy EV charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability. Eligibility for these funds is contingent on GDOT's plan submission outlining fund allocation and the designation of alternative fuel corridors.

Carbon Reduction Program

Administered by FHWA, these funds are allocated to GDOT on a lump-sum basis for projects that support the reduction of transportation emissions, including bicycle and pedestrian projects and electric vehicle charging stations.

FEDERAL DISCRETIONARY PROGRAMS

Safe Streets and Roads for All (SS4A)

This program makes $5 billion available for local initiatives that prevent transportation-related deaths and injuries on roadways. MPOs and local and tribal governments are eligible to receive these funds for developing safety action plans, planning, designing, and developing activities for infrastructure projects, or executing the projects in safety action plans.

Local and Regional Project Assistance Grants (Formerly RAISE)

These discretionary grants have been recently updated and awarded based on merit criteria that encompass safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Projects falling within the range of $5 million to a maximum of $25 million are eligible for RAISE funding.

Nationally Significant Multimodal Freight and Highway Projects (Formerly INFRA)

This program awards competitive grants for multimodal freight and highway projects of national or regional significance. The objective is to enhance the safety, efficiency, and reliability of freight and passenger movement across rural and urban areas. Projects that promise to eliminate freight bottlenecks and enhance critical freight movements are prioritized.

National Infrastructure Project Assistance for "Megaprojects"

This program, sometimes referred to as the "Megaprojects program" or MEGA, offers grants to support multijurisdictional or regional projects of significance that cut across multiple transportation modes. These grants assist communities in completing large-scale projects that would otherwise be challenging to accomplish independently. Eligible projects include improvements on the National Multimodal Freight Network, National Highway Freight Network, National Highway System, and rail-highway grade separations.

Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT)

This discretionary program, akin to the formula counterpart, is aimed at funding projects that promote system resilience.

National Electric Vehicle (EV) Formula Program

Under the BIL, a portion of this program's funding (10%) is designated for discretionary grants to state and local governments requiring additional assistance to strategically deploy EV charging infrastructure.

Charging and Fueling Infrastructure Program

This discretionary initiative aims to deploy EV charging and alternative fueling infrastructure along designated alternative fuel corridors, in communities, or in public locations such as parks, schools, and public parking facilities. To utilize this program, corridors must first be designated as alternative fuels corridors, and a process for redesignating these corridors must be in place. Eligible projects include the acquisition and installation of publicly accessible EV charging or alternative fueling infrastructure, operating assistance for the first five years post-installation, and the acquisition and installation of traffic control devices.

Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grants

Administered by the Federal Railway Administration (FRA), this program funds projects that enhance the safety, efficiency, and reliability of intercity passenger and freight rail. Eligible projects span a wide spectrum, including capital investments in freight and passenger rail, safety technology deployment, planning, environmental analyses, research, workforce development, training, and locomotive emission reduction initiatives.

Railroad Crossing Elimination Grants

Also administered by the FRA, this program finances rail crossing improvements, with a focus on enhancing safety and freight mobility. Eligible projects encompass grade separated rail crossings, including planning, environmental review, and design components.

Community Development Block Grant (CDBG)

This grant provides communities with resources to address a wide range of unique community development needs, including transportation infrastructure improvements. The goal of this program is to build stronger and more resilient communities.

State Funding Sources and Grant Programs

State funding is available for transportation infrastructure projects in Georgia through the Georgia Department of Transportation (GDOT). State revenue sources can also be utilized for these improvements.

Transportation Funding Act (HB 170) Funds

This program represents a cornerstone of state funding, supporting a wide array of initiatives aimed at repairing, enhancing, and expanding Georgia's transportation network. These funds can be harnessed for both routine maintenance and capital improvement projects.

Quick Response Projects

Designed for efficiency and cost-effectiveness, the Quick Response Projects program targets lower-cost operational endeavors that can be executed rapidly, typically within one year, and with budgets under $200,000. These projects encompass critical tasks such as restriping, intersection improvements, and the addition or extension of turn lanes.

Local Maintenance & Improvement Grant (LMIG)

The LMIG program operates on an allocation model based on the total centerline road miles within each local road system and the population of counties or cities in comparison to statewide figures. This approach ensures equitable distribution of resources. Eligible projects for LMIG funding are diverse, encompassing preliminary engineering, construction supervision and inspection, utility adjustments or replacement, roadway maintenance and resurfacing, grading, drainage, base and paving of existing or new roads, storm drainpipe or culvert replacement, intersection improvements, turn lanes, bridge repair or replacement, sidewalk construction within the right of way, roadway signage, striping, guardrail installation, and signal installation or improvement.

Georgia Transportation Infrastructure Bank (GTIB)

Administered by the State Road and Tollway Authority (SRTA), GTIB presents an opportunity for grant and loan funding for projects with budgets of up to $10 million, which provides grants and low interest loans for state, local, and regional entities for transportation infrastructure improvements. When pursuing GTIB support, key considerations include demonstrating economic development potential, project readiness, and feasibility. Over the fiscal year of 2023, GTIB awarded $3.36 million in grant amounts and $13.9 million in loan amounts, with an investment amount of $199 million since 2010 assisting in producing projects that total over $1.1 billion.

GDOT Freight Operations Program

Tailored to address freight-specific operational challenges, the GDOT Freight Operations Program is responsive to the needs of communities grappling with issues related to truck and freight rail activity. The program targets solutions such as improving turn lanes and enhancing signal timing at key intersections along freight-heavy routes. The program offers awards of up to $2 million.

Local Funding Sources

The following policies provide the primary local sources of funding for transportation improvements in Georgia.

Local Option Sales Tax (LOST)

An additional one-percent sales tax levied by jurisdictions upon approval by public referendum. This tax is applied to the purchase, sale rental, storage, use, or consumption of tangible personal property and related services. Typically, a portion of a local jurisdiction's LOST is used to fund transportation improvements. A LOST program must include a specific list of projects to be completed using the revenues.

Special Local Option Sales Tax (SPLOST) from the Transportation Investment Act (TIA)

This tax can be implemented upon approval by a public referendum to levy one-percent regional sales tax. Funds can be used for a specific list of projects.

Transportation Special Purpose Local Option Sales Tax (TSPLOST)

This is a one-percent sales tax that can be levied upon approval by public referendum. These funds can only be used for transportation and is distributed among the county and cities based on population.

Planning Level Cost Estimation

The MTP analysis process determined planning-level cost estimates for all projects identified in this plan. Baseline estimates were developed from the following unit costs and the characteristics of proposed improvements. These estimates were derived by escalating unit costs from the Atlanta Regional Commission Estimation Tool.
Based on the overall construction costs, the following percentages were applied to derive planning-level cost estimates for other phases:

- Preliminary Engineering (PE): 10% of Construction Costs
- Right-of-Way Acquisition (ROW): 20% of Construction Costs
- Utility Coordination (UTL): 15% of Construction Costs
- Construction management (CMT): 7% of Construction Costs

In addition, a 15% contingency was applied to cost estimates (15% of construction costs). While these project cost estimates were derived in 2024 dollars, costs may need to be adjusted to account for inflation in the year of expenditure for programming of future costs for the County or MPO. An estimated annual escalation of 3% is recommended.

Table 4-20. Planning Level Unit Cost Estimates

Improvement Type	Assumptions	Unit	Estimated Construction Unit Cost	Estimated Total Unit Cost
Roadway Widening	One lane in each direction. Does not include median.	LM	$3,000,000	$5,010,000
Roadway Widening with Median	One lane in each direction (with raised or depressed median).	LM	$5,000,000	$8,350,000
New Roadway Alignment	One lane in each direction. Doubled for four lane road.	LM	$2,500,000	$4,175,000
Left Turn Lane	Per 250' turn bay.	EA	$200,000	$334,000
Right Turn Lane	Per 150' turn bay.	EA	$171,000	$285,570
Single Lane Roundabout		EA	$2,500,000	$4,175,000
Multi-Lane Roundabout		EA	$3,500,000	$5,845,000
Add RCUT on Two-Lane Road		EA	$1,000,000	$1,670,000
Add RCUT on Multi-Lane Road		EA	$500,000	$835,000
Roundabout Bypass Lane	Per 250' turn bay.	EA	$200,000	$334,000
Repaving	*Assumes milling and inlay for 2-lane roadway section with restriping.	LM	$250,000	$417,500
Miscellaneous Striping Improvements	One lane in each direction.	LM	$10,000	$16,700
Sidewalk	Urban section with 5' sidewalk, curb and gutter.	LM	$430,000	$718,100
Multiuse path	Urban section with 10' MUP, curb and gutter.	LM	$430,000	$718,100
Open Drainage (Ditch)	Modify ditch to provide open drainage system with 20 ft ditch	LM	$300,000	$501,000
Curb and Gutter with Piped Drainage System	Curb and Gutter on both sides of road with Piped drainage	LM	$1,000,000	$1,670,000
Detention Pond		EA	$75,000	$125,250
Traffic Signal	Mast arm configuration	EA	$350,000	$584,500
Rectangular Rapid Flashing Beacon (RRFB)	Double-sided RRFB assemblies with push button detection.	EA	$30,000	$50,100
Signal Modification	Modifications to add signal heads, and/or pedestrian signals with no modifications to poles or vehicle detectors.	EA	$20,000	$33,400
Stop Control		EA	$5,000	$13,945
Bridge Replacement	150 ft x 50 ft bridge	EA	$1,125,000	1,878,750
Right In- Right Out Driveway Island		EA	$50,000	$83,500
Unpaved Shoulder	Grade and add material to create a 6 ft shoulder with 4 ft additional clear zone beyond pavement.	LM	$80,000	$133,600
Median Break		EA	$50,000	$83,500
Bike Lanes	4 ft bike lanes on both sides of the road with repaving with no curb modifications	LM	$575,000	$960,250

Improvement Type	Assumptions	Unit	Estimated Construction Unit Cost	Estimated Total Unit Cost
Bike Lanes with curb modification	4 ft bike lanes on both sides of the road with repaving with curb modifications	LM	$850,000	$1,419,500
Rural Freight Upgrades <3,000 ADT	Widen 2 lanes by 2 ft each with 3' shoulder and 3:1 transition to ditch.	LM	$315,000	$526,050
Lane Widening	Widen 2 lanes by 2 ft each with repaving without additional shoulder improvement.	LM	$475,000	$793,250
Freight Upgrades to Provide Major Collector Cross-Section	Widen 2 lanes by 2 to 4 ft each and provide 6 ft unpaved shoulder with 10 ft clearzone buffer which can include ditch.	LM	$625,000	$1,043,750

Note: the unit costs above are Planning Level Costs, based on information on similar project, and experience of the Pond Design and planning team and input from cost estimate sources such as the GDOT Intersection Control Evaluation (ICE) tool and Atlanta Regional Commission (ARC) costing spreadsheet.
*Total unit cost includes PE, ROW, Utility coordination, and construction management (see factors on page 4-28).

Project Cost

The following tables summarize the total cost for each project identified in this plan. More detailed cost estimate tables can be found in Appendix C.

Table 4-21. Intersection Cost Estimates

Project ID	Project Name	Recommendation	Jurisdiction	Total Cost
I-1	SR 17 at SR 119/Springfield Avenue	Install a northbound right turn bypass lane	GDOT	$349,600
I-2	SR 119 at Little McCall Road	Install single lane roundabout	Effingham County	$4,370,000
I-4	McCall Road at Little McCall Road	Realign Rahn Station Road to Little McCall Road and Install Single Lane Roundabout with Bypass Lanes	Effingham County	$5,812,100
I-5	McCall Road at Low Ground Road	Install Single Lane Roundabout	Effingham County	$4,370,000
I-8	Courthouse Road at Little McCall Road	Install stop bars along all approaches, repair road shoulders within the intersection area	Effingham County	$22,239
I-9	US 80 at SR 30	Install southbound dual left turn lanes and provide an overlap phase for the westbound right turn movement	GDOT	$349,600
I-10	US 80 at Sand Hill Road	Install Multilane Roundabout	GDOT	$6,118,000
I-11	US 80/SR 26 at Old River Road	Construct Old River Road Connector and Convert Existing Segment of Old River Road to One Way; Install Multilane Roundabout at the New Intersection of US 80 at the Old River Road Connector	GDOT	$6,992,000
I-12	Hodgeville Rd at Cedar Ridge Dr/Gateway Parkway	Install single lane roundabout	Effingham County	$4,370,000
I-13	Midland Rd at Low Ground Rd	Install single lane roundabout	Effingham County	$4,370,000
I-14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Install single lane roundabout	Effingham County	$4,370,000

Project ID	Project Name	Recommendation	Jurisdiction	Total Cost
I-15	SR 17 at Midland Road	Install single lane roundabout	Effingham County	$4,370,000
I-16	SR 17 at Courthouse Road	Install southbound left and westbound right turn lanes	GDOT	$648,508
I-18	SR 17 at SR 30	Install a two-way center turn lane along the southern leg of the intersection, a southbound left turn lane, and a westbound left turn lane	Effingham County	$1,048,800
I-19	SR 17 at Marlow Road	Install eastbound and southbound left turn lanes	Effingham County	$699,200
I-20	SR 17 at Jabez Jones Road	Install single lane roundabout with northbound right turn bypass lane	GDOT	$4,719,600
I-22	Midland Road at Courthouse Road	Install single lane roundabout	Effingham County	$4,370,000
I-24	Blue Jay Road at Midland Road	Install Single Lane Roundabout	Effingham County	$4,370,000
I-25	SR 30/Noel C. Conaway Road at Midland Road	Install Roundabout with Eastbound Bypass Lane	Effingham County/GDOT	$4,719,600
I-26	SR 30 at Hodgeville Road	Install single lane roundabout with a free flow eastbound through bypass lane and a yield controlled westbound right bypass lane	GDOT	$5,069,200
I-27	SR 30 at Kolic Helmey Road	Install Multilane Roundabout	Effingham County	$6,118,000
I-28	Blue Jay Road at Hodgeville Road	Install Single Lane Roundabout	Effingham County	$4,370,000
I-29	Hodgeville Road at Goshen Road	Install single lane roundabout	Effingham County	$4,370,000
I-30	Hodgeville at Kolic Helmey Road	Install Single Lane Roundabout	Effingham County	$4,370,000
I-31	Rincon Stillwell Road at Fort Howard Road	Install Single Lane Roundabout	Effingham County	$4,370,000
I-33	SR 21 at SR 119	Install additional northbound dual left turn lane and provide overlap phase for eastbound right turn movement	GDOT	$384,560
I-36	SR 21 at SR 275/Ebenezer Road	Move back stop bar for the eastbound through/left lane, modify northbound right turn lane to provide wider curb radius	GDOT	$22,239
I-37	SR 21 at Ninth Street	Install eastbound right turn lane, provide permissive-protected signal phase for side street left turning movements, provide overlap phase for eastbound right turn movement	City of Rincon	$333,868
I-38	SR 21 at Fort Howard Road	Remove channelized islands at Rincon Commercial Park Drive and Fort Howard Road in order to convert existing northbound right turn lane to a through lane, install northbound right turn lane, convert westbound left turn lane to dual left turn, provide overlap phases for northbound and westbound right turn movements	City of Rincon	$740,278
I-39	SR 21 at Prosperity Drive/Walmart Access	Install northbound right turn lane	City of Rincon	$333,868
I-41	SR 21 at Towne Park Drive	Install Westbound Right Turn Lane	City of Rincon	$333,868
I-42	SR 21 at Westwood Drive/Silver Lake Drive	Install side street right turn lanes in conjunction with SR 21 Widening (Project N-18)	GDOT	$632,776

Project ID	Project Name	Recommendation	Jurisdiction	Total Cost
I-43	SR 21 at McCall Road	Install additional northbound left turn lane, install additional eastbound left turn lane, convert eastbound right turn lane to a channelized free-flowing movement	GDOT	$1,033,068
I-44	SR 21 SB at Goshen Road	Install westbound left turn lane along Goshen Road	GDOT	$349,600
I-45	SR 21 NB at Goshen Road	Install eastbound left turn and westbound right turn lanes on Goshen Road, widen SR 21 north bound to three through lanes, provide permissive-protected signal phasing for eastbound left turn movement	GDOT	$1,994,468
I-46	SR 21 at Old Augusta Road	Install Dual Eastbound Left Turn Lanes, Install Triple Southbound Left Turn Lanes along Old Augusta Road and Widen SR 21 to Six Lanes	GDOT	$2,307,360
I-48	SR 21 at 4th Street	Signalize intersection and install westbound left turn lane	GDOT	$961,400
I-49	Stillwell Road at Long Bridge Road	Realign Long Bridge Road to be located further from the railroad line.	Effingham County	$1,223,600
I-52	SR 21 near Fort Howard Road	Convert driveways along Fort Howard Road and SR 21 within 500 feet of their intersection to right in/right out or RCUT configuration	City of Rincon	$961,400
I-53	Springfield Elementary School Driveway	Install Turn Lanes along N Laurel Street and Springfield Road at Intersections with School Access Points	City of Springfield	$1,945,524
I-54	McCall Road and New East-West Road/Effingham Power Driveway	Install Single Lane Roundabout	Effingham County	$4,370,000
I-56	McCall Road at Blue Jay Road/Blandford Road (East)	Install Single Lane Roundabout in conjunction with realignment of McCall Road (south) Project N-23	Effingham County	$4,370,000
I-57	SR 21 at New East-West Road	Traffic Signal Control for New Intersection	Effingham County	$611,800
I-58	New North-South Road and GIRP Road	Minor Street Stop Control for New Intersection	City of Rincon	$8,740
I-60	Old Augusta Road and Parkers Driveway	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	Effingham County	$192,280
I-61	Old Augusta Road and South U-Turn Crossover	Multi Lane Unsignalized Median Break w/ Turn Lanes	Effingham County	$735,908
I-62	LEO and the Sanctuary	Install Unsignalized RCUT	Effingham County	$874,000
I-63	Old Augusta Road and Northgate	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	Effingham County	$192,280
I-64	Old Augusta Road and Exeter/Trailer Yard	Install Multilane Roundabout	Effingham County	$6,118,000
I-65	Old Augusta Road and Cowan South	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	Effingham County	$192,280
I-66	Old Augusta Road and Estes	Install Multilane Roundabout	Effingham County	$6,118,000
I-67	Old Augusta Road and Chesterfield/Logistics	Install Multilane Roundabout	Effingham County	$6,118,000
I-68	Old Augusta Road and Cowan Center	Widen Old Augusta Road to Four Lanes and Install Right In/Right Out Driveway	GDOT	$192,280
I-69	Old Augusta Road and Cowan North	Install Single Lane Roundabout	Effingham County	$4,370,000

Project ID	Project Name	Recommendation	Jurisdiction	Total Cost
I-70	Old Augusta Road and Chimney Road	Install Single Lane Roundabout	Effingham County	$4,370,000.00
I-71	SR 21 and Chimney Road	Install Unsignalized RCUT	GDOT	$874,000
I-72**	Goshen Road at Huger Street**	Install Eastbound Right Turn Lane	Effingham County	Part of N-3
I-73**	Goshen Road and Crystal Drive**	Install Westbound Right Turn Lane	Effingham County	Part of N-3
I-74**	Goshen Road and Stephens Drive**	Install Westbound Right Turn Lane	GDOT	Part of N-3
I-75**	Goshen Road and DR-Horton-Longleaf Driveway**	Install Westbound Right Turn Lane	Effingham County	Part of N-3

***I-72, I-73, I-74, and I-75 have been incorporated into Goshen Road improvement projects N-3.*

Table 4-22. Roadway and Freight Cost Estimates

Project ID	Name	Recommendation	Total Cost
N-1	Blue Jay Road from Effingham Pkwy to McCall Rd	Widen travel lanes and improve roadway structure to support truck movement. Four lane divided with sidewalk and multiuse path from Effingham Parkway to McCall Road.	$16,730,545
N-2	Blue Jay Road from McCall Rd to Sandhill Rd	Shoulder widening and turn lane improvements. Include sidewalk and multiuse path.	$24,270,543
N-3	Goshen Road Two Way Left Turn Lane	Addition of center continuous two way left turn lane on Goshen Road	$17,927,488
N-4	Low Ground Road Safety Improvements	Improve Low Ground Road to reduce crash risk and accommodate potential vehicle demand; install striping to denote separate lanes, roadway shoulders, and resurface the facility	$437,000
N-5	OmniTRAX East-West Connector	New two-lane roadway between Hodgeville Road and McCall Road potentially to be built as part of a future development	$12,075,800
N-6	Old Augusta Road Freight Accommodations	Freight Improvements from Ebenezer Road to Fort Howard Road	$4,085,950
N-7	Old Augusta Road Widening Phase II	Widen Old Augusta Road to four lanes with a divided median from Chimney Road to Fort Howard Road.	$18,352,890
N-8	McCall Roadway Widening and Freight Upgrades	Widen roadway from Blue Jay/Blandford Rd to Little McCall Road. Widen travel lanes and improve roadway structure to support truck movement. Phase 1 Blue Jay Road to East-West Road, Phase 2 East-West Road to Little McCall Road, Phase 3 Little McCall Road to SR 119.	$47,818,111
N-9	Rahn Station Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of this segment to the County truck ordinance as truck routes should be considered.	$1,911,043
N-10	Long Bridge Road Freight Upgrades	Widen travel lanes and improve roadway structure to support truck movement.	$2,882,680
N-11	Effingham Parkway Ext. / SR 21 - SR 119 Connector	Construct new roadway from SR 21 north of Old Tusculum Road to SR 119 west of Effingham County Middle School. Construct a 2-lane extension of Effingham Parkway from McCall Road to SR 119	$40,618,276
N-12	Northwest Springfield Bypass SR 119 to SR 21	New roadway from SR 119 to SR 21 with at-grade railroad crossing	$5,331,400

Project ID	Name	Recommendation	Total Cost
N-13	Sand Hill Road Operational Improvements	Improve Sand Hill Road, including shoulder improvements, increasing lane width, and curve reconstruction.	$2,064,825
N-15	Low Ground Road Extension West	Extension of Low Ground Road West from bend towards Blue Jay Road to SR 17	$6,280,450
N-16	McCall Road (south) Roadway Realignment	Widen travel lanes and improve roadway structure to support truck movement from Blue Jay Road to Gateway Parkway. Realign section south of Blandford to the east.	$3,277,500
N-18	SR 21 Widening	Widen SR 21 from SR 30 to 9th Street in Rincon. Phase 1 SR 30 to McCall Road, Phase 2 McCall Road to 9th Street. Part of this project is in Chatham County	$37,668,956
N-19	Blue Jay Road Extension from Sandy Hill Road to US 280	Construct new roadway to connect Blue Jay Road at Sand Hill Road to US 280 at US 80.	$12,751,039
N-20	Effingham Parkway Widening	Widen Effingham Parkway to four lanes	$33,507,717
N-21	Old Augusta Road Widening	Widen Old Augusta Road to four lanes with a divided median from SR 21 to north of Chimney Road.	$23,710,623
N-22*	Southeastern Roadway Network (SERN) East-West Roadway	Construct a new roadway connecting McCall Road and SR 21 north of Blandford Road including a Railroad Grade Separation	$31,567,500
N-23	Southeastern Roadway Network (SERN) North-South Roadway	Construct a new roadway connecting the SERN East-West Roadway with Costal Trade Center Roadway and the Georgia International Rail Park Roadway	$3,284,780
N-25	Jabez Jones Road Extension from SR 30 to US 80	Construct a new roadway project with the purpose of providing a connection betweenSR-17S at Jabez Jones Rd and US 80	$12,851,802
N-26	US 80 Widening from SR 17 to US 280	Widen US 80 to four lanes with raised median or two-way-left turn lane	$67,466,944
N-28	Old River Road Widening from North of I-16 to US 80	Conduct a scoping study to investigate the feasibility of widening Old River Road to four lanes	$123,050
N-30	Egypt Ardmore Road Paving	Convert the dirt road Egypt Ardmore Road to a paved section designed to accommodate heavy vehicles, including shoulders	$3,595,340
N-32	Clyo-Kildare Road Freight Accommodation Improvements	Improve Clyo-Kildare Road from SR 119 to SR 21 including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	$12,253,796
N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Improve Stillwell Clyo Road from Long Bridge Road to Fair Street including shoulder improvements, increasing lane width, and curve reconstruction	$4,643,183
N-34	Fair Street Freight Accommodation Improvements	Improve Fair Street from SR 119 to Clyo-Shawnee Road including shoulder improvements, increasing lane width, and curve reconstruction in order to better accommodate commercial vehicle traffic	$629,876

Note: Cost estimate for N-22 were determined from the SERN Report.

Table 4-23. Active Transportation Cost Estimates

Project ID	Project Name	Project Type	Total Cost
A-1	RRFB and Crosswalk at SR 21 BU/Laurel Street	Pedestrian Crossing	$69,920
A-2	Hi-Lo Trail	Multi-Use Trail	$21,106,051
A-3	Rincon-Springfield Bicycle/Pedestrian Connection	Further Study - Multi-Use Trail	$123,050
A-4	Low Ground Road Bike/Ped Connection	Further Study - Multi-Use Trail	$123,050
A-5	SR 119 Multi-Use Path	Multi-Use Trail	$13,598,041
A-6	SR 21	Bicycle Lanes, Sidewalks	$10,784,460
A-7	Fort Howard Road	Bicycle Lanes	$3,071,236
A-8	US 80	Separated Bike Lane, Sidewalks	$29,926,109
A-9	Hodgeville Road	Wide Shoulder, Sidewalks	$18,710,941
A-10	SR 30/Noel C Conaway Road	Bicycle Lanes, Sidewalks	$26,982,128
A-11	Meldrim-Chatham Trail	Multi-Use Trail	$2,638,256
A-12	N. Carolina Ave	Wide Shoulder, Sidewalks	$13,909,447
A-13	4th Street/Rincon-Stillwell Road	Bicycle Lanes, Sidewalks	$14,680,490
A-14	Goshen Road	Bicycle Lanes, Sidewalks	$9,703,759
A-15	Kolic Helmey Road	Bicycle Lanes, Sidewalks	$31,012,579
A-16	Courthouse Road	Multi-Use Trail	$6,972,247
A-17	SR 119 Multi-Use Path Extension	Multi-Use Trail	$17,345,753
A-18	Old Augusta Road	Wide Shoulder	$6,754,272
A-19	SR 275	Bicycle Lanes, Sidewalks	$3,395,227
A-20	McCall Road	Wide Shoulder, Sidewalks	$34,762,650
A-21	Sand Hill Road	Bicycle Lanes, Sidewalks	$23,617,577
A-22	Rahn Station Road	Wide Shoulder	$4,245,892
A-23	Blue Jay Road	Multi-Use Trail	$29,968,935
A-24	Chimney Road	Bicycle Lanes, Sidewalks	$9,178,048
A-25	Stillwell Road/Longbridge Road	Bicycle Lanes, Sidewalks	$23,302,151

Transportation Master Plan Update

Appendices

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APPENDIX A: POLICY GUIDELINES

As Effingham County continues to grow and evolve, new challenges are likely to emerge that cannot be fully anticipated in this plan. To help navigate future growth and address unforeseen issues, this plan includes a set of policy guidelines. These guidelines are designed to provide a framework and serve as a starting point for various policies the County may implement moving forward. They can be adopted independently as official County policy, integrated into the County's zoning and development ordinances, or managed through actions taken by staff or council.

EXPANDING ROADWAY NETWORK

Effingham County currently features a general grid network with several key roads running roughly north-south (SR 21, SR 17, Hodgeville Road, Midland Road, and the upcoming Effingham Parkway) and others running roughly east-west (SR 119, Blue Jay Road/Blandford Road, Low Ground Road, and Courthouse Road). Expanding this network will create a more resilient transportation system, offering alternative routes for travelers.
In many areas, extending the existing roadway network may not be possible due to environmental constraints or existing developments. Effingham County can preserve, expand, and improve the roadway network by implementing the following measures.

PRIORITIZING IMPROVEMENTS AND CONNECTIONS OF EXISTING ROADWAYS

Prioritize Key Corridor Improvements

- Focus infrastructure improvements on critical north-south and east-west corridors, such as SR 21, SR 119, and Blue Jay Road, to enhance traffic capacity and reduce congestion.
- Require phased improvements such as turn lanes, signal upgrades, and intersection enhancements in areas experiencing significant development pressure.

Implement Intersection Safety Improvements

- Allocate funds and prioritize signal upgrades, turning lane additions, and crosswalk improvements at intersections of major roads like SR 21 and SR 119 to handle increased traffic and improve safety.

ENSURE THE ROADWAY NETWORK KEEPS PACE WITH DEVELOPMENT

Align Development with Infrastructure Capacity

- Developers should be required to submit traffic impact studies for any new development that increases traffic volume and ensure infrastructure improvements are aligned with projected growth.
- Implement a concurrency requirement that mandates transportation improvements or commitments be made in tandem with new developments to prevent traffic congestion from outpacing road capacity.

Require Proportional Contributions to Roadway Improvements

- Implement impact fees for new developments, particularly those located along SR 17, Hodgeville Road, and Midland Road, to ensure that development pays for proportional improvements to the roadway system.

Requiring Developers to Provide Connections through Larger Developments

Mandate Internal Road Networks for Large Developments

- Require large developments (e.g., over 25 acres) to provide an internal road network with multiple connections to public roads and cross-access with adjacent parcels.
- Prohibit developments from creating isolated access points to a single roadway without providing internal connections to distribute traffic more efficiently.

Prioritize Inter-Parcel Connectivity

- Enforce mandatory inter-parcel connections for developments located along major corridors to reduce traffic on public roads and allow for shared internal driveways.
- Adopt zoning regulations that incentivize shared access points and internal connectivity to minimize direct access to major arterial roads.

Mandating Roadway Extensions or Reservations for Future Extensions

Extend Major Roadways Through Development

- Require developments located at the terminus of a major roadway (collector or higher functional classification) to either extend that roadway or reserve right-of-way space for future extensions.
- Developers should be responsible for ensuring that new roadways align with the county's future transportation plan, and that road stubs or extensions facilitate long-term connectivity.

Right-of-Way Reservation for Future Expansions

- Preserve right-of-way along corridors in high-growth areas for future widening or extension projects. Develop guidelines that allow developers to dedicate or reserve land for future roadway expansions without incurring additional costs later.

Exploring Road Diet Opportunities

Prioritize Road Diets in Activity Centers

- Identify key corridors serving Activity Centers (e.g., areas near schools, parks, and commercial hubs) and prioritize them for road diets that reduce vehicle lanes in favor of wider sidewalks, bike lanes, and pedestrian crossings.
- Apply road diets on roads like Hodgeville Road and Courthouse Road where lower vehicle throughput and higher multimodal opportunities are needed to enhance safety and connectivity.

Multimodal Prioritization in Road Expansions

- In road widening projects, incorporate multimodal infrastructure such as bike lanes and wider sidewalks. Establish design standards that prioritize pedestrian and bicycle connectivity alongside vehicle capacity.

Key Recommendations

- Allocate funding to improve intersections, widen lanes, and upgrade signals.
- Prioritize the Effingham Parkway expansion to serve as a major alternative to SR 21.
- Improve connections between north-south and east-west corridors to ensure network resilience.
- Update zoning ordinances to require traffic impact studies for new developments.
- Implement impact fees or developer contributions for road widening, turn lanes, and traffic signal upgrades.
- Adopt a Complete Streets policy that requires sidewalks, bike lanes, and crosswalks in all new road expansions.

- Prioritize road diets in Activity Centers, such as along Hodgeville Road, to promote pedestrian and bicycle-friendly environments.
- Require developments near the terminus of major roads (e.g., Midland Road, Effingham Parkway) to extend those roads or reserve right-of-way for future extensions.
- Ensure connectivity between subdivisions and adjacent properties to avoid reliance on a single access point.
- Apply road diets on appropriate corridors (e.g., Courthouse Road, Hodgeville Road) and add pedestrian-friendly features like crosswalks and bike lanes.
- Upgrade key intersections with roundabouts, dedicated turn lanes, or improved traffic signals to reduce congestion and enhance safety.
- Enforce subdivision regulations that require developers to build internal roads with multiple access points to public streets.

ACCESS MANAGEMENT

Access management refers to the strategic planning and regulation of entry and exit points along roadways to improve traffic flow, enhance safety, and promote efficient land use. Best practices for access management aim to balance the need for mobility and accessibility while minimizing congestion and accidents. High-traffic corridors can benefit from best practices, such as raised medians, signal coordination, and controlled turning movements. With ongoing development, further application of access management techniques can reduce congestion and improve safety across the region.

To ensure consistent and effective access management, Effingham County shall adhere to the standards established in the Georgia Department of Transportation (GDOT) Encroachment and Driveway Manual. This manual serves as a guiding resource for driveway placement, spacing, and encroachment on state and county roads. By implementing these standards, the County aims to align local practices with state regulations, minimizing roadway conflicts and enhancing safety across the transportation network.

IMPROVE DRIVEWAY SPACING AND CONSOLIDATION

UPDATE SPACING STANDARDS

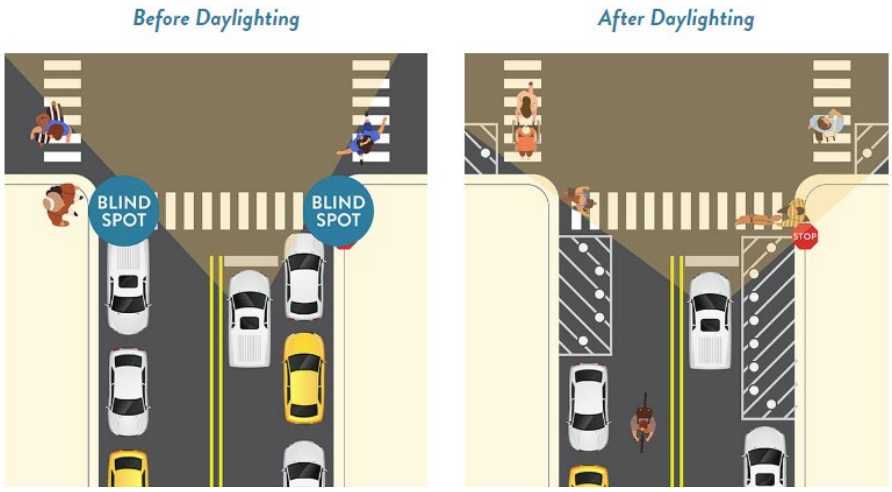
As development continues, particularly along State Routes 21 and 119, stricter standards for driveway spacing and access consolidation will be essential. Current standards may allow too many access points in commercial areas, contributing to congestion and safety hazards. By adopting specific spacing standards based on the road's functional classification and speed limits, the County can better manage traffic flow and improve safety. These standards should be incorporated into zoning and subdivision regulations, particularly for new developments along the county's arterials and collectors. Recommended spacing standards for driveway access:

Major Arterials

Major arterials serve high-speed, high-volume traffic and have fewer interruptions for access. Driveway spacing is crucial for maintaining smooth traffic flow and reducing the likelihood of crashes in high-speed environments.

- Speed Limit 35-45 mph: Minimum driveway spacing of 300 - 400 feet between driveways to reduce conflict points and improve traffic flow.
- Speed Limit Above 45 mph: Minimum driveway spacing of 425 - 550 feet between driveways to account for higher speeds and ensure adequate reaction time for turning movements.
- Right-in/Right-out Only Access: Where left turns are problematic, driveways may be restricted to right-in/right-out access with a raised median.

- Corner Clearance from Intersections: At signalized intersections, driveways should be located at least 400 feet from the intersection to avoid interference with traffic operations. Apply intersection daylighting techniques at signalized or all way stop controlled intersections to improve safety, reduce blind spots and slow turning vehicles so they are more likely to see and yield to pedestrians in the crosswalks.



Minor Arterials

Minor arterials are designed to accommodate moderate volumes of traffic and serve as connections between major arterials and local streets.

- Speed Limit 35-45 mph: Minimum driveway spacing of 225 -275 feet.
- Speed Limit Above 45 mph: Minimum driveway spacing of 400-500 feet.
- Corner Clearance from Intersections: Driveways should be located at least 250-300 feet from signalized intersections to ensure proper vehicle stacking and reduce conflicts.
- Shared Access: Where possible, adjacent properties should share driveways to reduce the number of access points along the corridor.

Collectors

Collector roads serve as the intermediate step between arterials and local streets, handling moderate traffic volumes while providing more direct access to properties.

- Speed Limit 25-35 mph: Minimum driveway spacing of 150 -200 feet.
- Speed Limit Above 35 mph: Minimum driveway spacing of 150-250 feet.
- Corner Clearance from Intersections: Driveways should be located at least 150-200 feet from intersections, with additional clearance in higher-speed environments.
- Encourage Cross-Access: Driveways should be designed to facilitate internal circulation and cross-access between adjacent properties, minimizing the number of curb cuts.

Local Streets

Local streets serve low traffic volumes, providing direct access to residential and smaller commercial properties.

- Speed Limit 25 mph or less: Driveway spacing should be a minimum of 125 feet.
- Corner Clearance from Intersections: Driveways should be located at least 100 feet from intersections to allow for safe vehicle entry and exit.
- Multiple Driveways Discouraged: On smaller lots, only one driveway per parcel should be permitted to reduce curb cuts and maintain safety.

These updated standards should be incorporated into Effingham County's zoning and development ordinances, particularly for new developments along major corridors, to prevent congestion and improve traffic safety. Shared access points between properties can help alleviate this.

ADDITIONAL CONSIDERATIONS

- **Entrances to Neighborhood:** For all neighborhoods, the current entrance requirements are a minimum of 1 entrance and 1 emergency access point.
- **Driveway Alignment**: Where possible, driveways on opposite sides of the road should align to avoid offset intersections, which can create confusion and increase the likelihood of accidents.
- **Turn Lane Requirements**: For arterials and higher-volume collectors, driveways serving large commercial developments may require dedicated deceleration lanes or left-turn lanes to prevent disruption of through traffic.
- **Access Denial Areas**: In particularly high-traffic areas or along segments with significant congestion or crash history, access may be restricted entirely, requiring properties to use shared driveways or service roads.
- **Residential Driveways**: Minimum width of 10-12 feet for single driveways.
- **ADA Compliance**: Access management must also prioritize accessibility for all users, including those with disabilities, in accordance with The Americans with Disabilities Act. ADA-compliant design ensures that features such as pedestrian crossings, sidewalks, curb ramps, and signals meet accessibility standards, creating an inclusive environment for everyone.

ENCOURAGE CROSS-ACCESS

To further reduce congestion and improve access efficiency, the County should update policies to require or incentivize cross-access between adjacent commercial and residential developments. By connecting parking lots or creating internal road networks that allow vehicles to travel between properties without re-entering the main road, the need for multiple driveways along the main corridor can be minimized. This practice not only reduces turning movements but also decreases the likelihood of accidents.

The County can establish a minimum requirement for cross-access in commercial zones, specifying that properties over a certain size or with multiple entrances must provide access to adjacent properties. Additionally, offering incentives such as reduced setback requirements or flexible parking standards can encourage developers to implement cross-access in their designs. These requirements can be incorporated into zoning ordinances to ensure that new developments promote internal circulation and reduce dependency on the main roadways.

MINIMUM REQUIREMENTS FOR CROSS-ACCESS IN COMMERCIAL ZONES

Lot Size and Development Thresholds

Commercial Developments Greater than 2 Acres

Any commercial development with a lot size exceeding 2 acres must provide cross-access to adjacent properties. This includes a requirement for internal driveway connections or shared parking areas to reduce the number of individual driveway cuts on the main corridor.

Mandatory Cross-Access Easements

A legally recorded cross-access easement of at least 20 feet in width must be established along all property boundaries that abut potential or existing commercial developments. The easement should be situated to allow for a logical and direct connection between adjacent parking lots or internal roadways, facilitating seamless vehicular movement between properties. The cross-access easement must be recorded with the county recorder's office, and documentation should be provided to the County during the development approval process.

Internal Driveway Connections

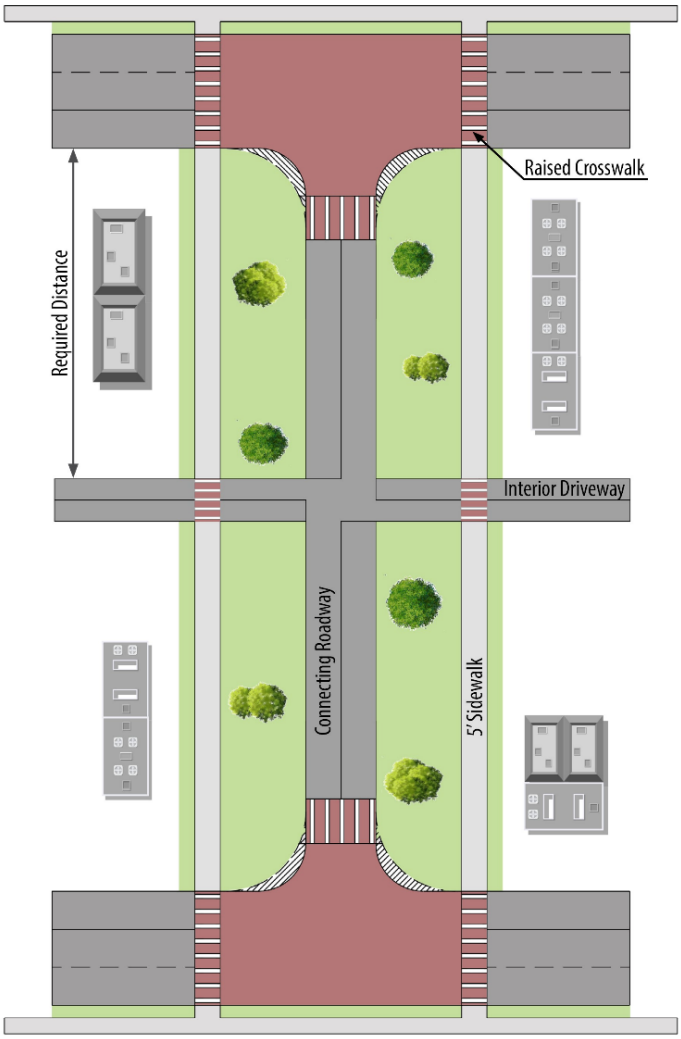
Internal driveways connecting to adjacent properties must have a minimum width of 24 feet to accommodate two-way traffic, as specified in the internal access road design standards. The distance between the roadway traffic and the first internal intersection should be a minimum of 200’ from edge of travel way or ⅕ of lot depth. Where feasible, internal driveways should align with existing or planned driveways on adjacent properties to create a cohesive internal road network. If adjacent properties are undeveloped, the development must provide stub-outs or planned connection points for future cross-access when those properties are developed.

Shared Parking Areas

Developments are encouraged to design parking lots that can be easily connected to adjacent properties, allowing for shared parking arrangements and reducing the total number of parking spaces needed. Internal access roads should provide direct routes to shared facilities such as loading zones, dumpsters, or other service areas when mutually agreed upon by property owners.

Limitations on Driveway Cuts

Developments over 2 acres are limited to a maximum of two direct driveway access points onto major arterial or collector roads. Where possible, developments should consolidate access points with adjacent properties, utilizing shared driveways to minimize the number of curb cuts on the main roadway.



SPACING OF DRIVEWAYS	
LOT DEPTH	REQUIRED DISTANCE
≥ 1000'	200' minimum
< 1000'	not less than 1/5 lot depth
> 500'	100' minimum

Development Internal Roadway

Pedestrian and Bicycle Connectivity

Developments must provide pedestrian pathways at least 6 feet wide that connect building entrances to public sidewalks and adjacent properties' pedestrian networks to comfortably accommodate two-way pedestrian traffic. All pathways must comply with the Americans with Disabilities Act (ADA) standards, ensuring accessibility for individuals with disabilities. Developments must provide pedestrian connections to existing or planned pedestrian

networks on neighboring properties, promoting seamless movement between sites. Secure bicycle parking should be provided near building entrances, and bike lanes or shared-use paths should be integrated into the internal circulation plan where appropriate. If a developer is connecting a sidewalk to an existing signal, the signal should be considered for an upgrade to include Audible Pedestrian Crosswalk signals for improved accessibility.

Maintenance Agreements

Property owners must enter into a legally binding agreement outlining the maintenance responsibilities for the cross-access areas, including debris removal, pavement repairs, lighting, and signage. The maintenance agreement should be perpetual and run with the land, ensuring that future owners are bound by its terms.

Signage and Wayfinding

Install clear and consistent signage to guide motorists through the internal road network and to indicate connections to adjacent properties. Include necessary stop signs, yield signs, and speed limit signs within the internal access roads to ensure safe vehicular movement.

Safety Measures

Adequate lighting must be installed along internal access roads and pedestrian pathways to ensure visibility and safety during nighttime hours. Implement speed bumps, raised crosswalks, or other traffic calming measures within internal roadways to control vehicle speeds and enhance pedestrian safety.

Exceptions and Variances

If physical barriers such as waterways, significant grade changes, or existing structures prevent the establishment of cross-access, the developer must provide documentation and may request a variance from the County. In cases where cross-access cannot be provided, the developer may be required to contribute to off-site traffic improvements or implement additional on-site traffic management measures.

Incentives for Compliance

Developers who exceed the minimum cross-access requirements may qualify for reduced building setback distances, allowing for more flexible site design. The County may permit a reduction in the number of required parking spaces when shared parking agreements are in place between adjacent properties. Projects that fully comply with cross-access requirements may be eligible for an expedited site plan review and approval process.

Coordination with Adjacent Properties

Developers are encouraged to coordinate with neighboring property owners during the design phase to align access points and share infrastructure costs. Site plans should illustrate how cross-access will integrate with potential future developments on adjoining parcels, ensuring long-term connectivity.

Implementation Timeline

For large developments constructed in phases, cross-access connections must be included in the first phase and operational before a certificate of occupancy is issued for that phase. All required cross-access easements and internal connections must be completed and recorded prior to the issuance of a certificate of occupancy.

Developments with More than 200 Feet of Road Frontage

Properties with more than 200 feet of frontage along a major arterial or collector road must establish a cross-access agreement with adjacent properties to allow vehicular circulation between them.

Mandatory Cross-Access Agreements

Properties with more than 200 feet of frontage along a major arterial or collector road must establish legally binding cross-access agreements with adjacent properties to allow vehicular circulation between them. A cross-access easement of at least 20 feet in width must be provided along shared property boundaries to accommodate two-way vehicular traffic. The cross-access easements and agreements must be recorded with the county recorder's office. Proof of recording must be submitted during the development approval process.

Limitation on Direct Access Points

Such properties are limited to a maximum of one direct driveway access point onto the major arterial or collector road. Developers are encouraged to coordinate with adjacent property owners to create shared driveways, further reducing the number of curb cuts on the main roadway.

Internal Circulation Design

Internal roadways or driveways within the development must be designed to align with existing or planned internal roads on adjacent properties, facilitating seamless vehicular movement. The distance between the primary roadway and the first internal intersection must be a minimum of 200 feet from the edge of the travel way or 1/5 of the lot depth, whichever is greater, to ensure adequate throat depth for safe vehicular movement and traffic flow within the development.

Provision for Future Cross-Access

If adjacent properties are undeveloped or not currently configured for cross-access, the development must include stub-outs or reserved areas for future connections. Clearly mark and protect areas designated for future cross-access to ensure they remain available when adjacent properties are developed.

Exceptions and Variances

If natural barriers (e.g., wetlands, steep topography) or existing developments prevent cross-access, the developer may request a variance by providing documented evidence. In cases where cross-access cannot be provided, developers may be required to implement alternative measures, such as enhanced internal circulation or contributions to off-site traffic improvements.

Incentives for Compliance

Developers who exceed minimum cross-access requirements may qualify for reduced building setback distances, allowing greater flexibility in site design. The county may permit a reduction in the number of required parking spaces when cross-access reduces the need for duplicate parking areas. Projects that fully comply with cross-access requirements may be eligible for an expedited site plan review and approval process.

Pedestrian and Bicycle Connectivity

Developments must provide pedestrian walkways at least 6 feet wide that connect building entrances to public sidewalks and adjacent properties' pedestrian networks. Secure bicycle parking should be provided near building entrances, and bike lanes or shared-use paths should be integrated into the internal circulation plan where appropriate. Pedestrian and bicycle pathways should be extended to the property lines to allow future connections with neighboring developments.

Maintenance Agreements

Property owners must enter into legally binding agreements outlining the maintenance responsibilities for shared access areas, including paving, lighting, signage, and debris removal. Maintenance agreements and cross-access easements should run with the land, binding future property owners to the same responsibilities.

Signage and Traffic Control

Install clear and consistent signage to guide motorists through internal roadways and indicate connections to adjacent properties. Include necessary stop signs, yield signs, and speed limit signs within internal circulation areas to ensure safety. Provide signage for pedestrian and bicycle pathways to enhance usability and connectivity.

Implementation Timeline

All required cross-access connections and internal roadways must be constructed and operational before a certificate of occupancy is issued. For developments built in phases, cross-access provisions must be included and functional in each phase as it is completed.

Design Considerations

The single permitted driveway should be located to maximize sight distance and minimize interference with traffic flow on the main road. Driveways should be situated at least 300 feet from major intersections to prevent conflicts with intersection traffic movements. Where appropriate, include deceleration or right-turn lanes to improve safety and reduce disruptions to through traffic.

Traffic Impact Studies

Developments subject to these requirements must conduct a traffic impact study to assess the effects on the existing roadway network. Based on the study's findings, developers may be required to implement additional traffic mitigation measures, such as signal upgrades or roadway widening.

Alternative Access Solutions

In areas where direct cross-access is not feasible, the county may require the construction of service roads parallel to the main roadway to provide indirect access to multiple properties. Developers may be required to provide access from secondary roads or rear access drives to further reduce dependency on the main arterial or collector road.

Environmental and Aesthetic Considerations

Incorporate landscaping along property frontages and internal roadways to enhance visual appeal and provide buffers between vehicular areas and pedestrian pathways. Design cross-access and internal circulation areas to include stormwater management features, such as permeable pavements or bioswales, to mitigate runoff.

Incorporate landscaping along property frontages and internal roadways to enhance visual appeal and provide buffers between vehicular areas and pedestrian pathways. Design cross-access and internal circulation areas to include stormwater management features, such as permeable pavements, grass parking areas, or bioswales, to mitigate runoff and improve water quality, in compliance with Municipal Separate Storm Sewer System (MS4) requirements. Grass parking may be allowed in low-use or overflow areas to minimize impervious surfaces; however, the first row of parking adjacent to building entrances should be paved to ensure accessibility, durability, and ease of maintenance.

Legal Provisions

Cross-access easements must include language that ensures:

- Uninterrupted Access: Continuous and unobstructed access between properties.
- Non-Revocable Agreements: Easements cannot be revoked without the county's approval.
- Binding on Successors: All agreements bind future property owners.

Design Standards for Internal Access Roadway or Driveways

Minimum 24-Foot-Wide Driveway

A minimum 24-foot-wide internal access road or driveway should be required to accommodate two-way traffic between adjacent developments. A minimum width of 24 feet is required for internal access roads or driveways to comfortably accommodate two-way traffic. This width ensures that vehicles can pass each other safely without conflict, and it allows for adequate turning radii for larger vehicles such as delivery trucks or emergency vehicles.

In cases where an internal road serves as a fire lane, it should meet the local fire department's requirements for emergency vehicle access, which may necessitate additional width (typically 26 feet).

Curb and Gutter Design

Internal access roads should include curbs on both sides to improve stormwater management and provide a clear boundary between the roadway and adjacent parking or pedestrian areas. Curbs should have a minimum height of 6 inches to adequately direct water runoff and prevent vehicles from driving onto pedestrian areas. Roadways should have a cross-slope of 2% to facilitate proper drainage to the sides.

Turning Radii for Internal Intersections

At intersections within the internal access road network, a minimum turning radius of 25 feet should be provided to accommodate standard passenger vehicles and light commercial vehicles. For developments expecting frequent deliveries or larger vehicles, turning radii should be increased to 30-35 feet to ensure smooth maneuvering without disrupting traffic flow. Where access by delivery trucks, fire apparatus, or other large vehicles is anticipated, a minimum curb radius of 50 feet should be provided.

Pavement Standards

The internal access road should be constructed with a minimum pavement thickness of 6 inches of asphalt or 8 inches of concrete to withstand regular traffic loads, including delivery trucks and emergency vehicles. Proper compaction of the subgrade to a minimum of 95% Standard Proctor Density is required to ensure long-term durability of the internal roads, reducing the need for future repairs. In areas with poor soil conditions, soil stabilization techniques such as lime or cement treatment may be required. The roadway surface must be constructed of materials that provide an all-weather driving surface, suitable for year-round use by all vehicle types, including heavy trucks and emergency vehicles.

Signage and Striping

Internal access roads must include appropriate traffic control signage, such as stop signs at intersections and directional signage for cross-access routes. Signage should be compliant with the Manual on Uniform Traffic Control Devices (MUTCD). For roads serving higher volumes of traffic or longer internal routes, centerline striping should be provided to clearly indicate lanes for two-way traffic. The stripe should be painted with high-visibility reflective paint, with a minimum width of 4 inches.

Speed Control Measures

Internal roads should have a maximum speed limit of 15-20 mph to ensure safety within the development, especially in areas where pedestrians are likely to be present. Where necessary, traffic calming devices such as speed humps, raised crosswalks, or rumble strips should be implemented to control vehicle speeds and improve safety in shared-use areas.

Lighting and Visibility

Adequate lighting should be provided along internal access roads to enhance night-time visibility and safety. Lighting should be spaced at regular intervals and meet standards for luminance, with a focus on intersections and pedestrian areas. Uniform lighting along internal roadways should have a minimum average illumination level of 0.5 foot-candles, and light poles should be mounted at a height of 20-30 feet to ensure adequate coverage. At intersections of internal roads, clear sight triangles should be maintained, with no obstructions (e.g., signage, landscaping) within a 15-foot radius from the center of the intersection to ensure visibility for drivers.

Pedestrian Accommodations

A sidewalk with a minimum width of 6 feet should run parallel to internal access roads, providing safe pedestrian access between developments. Sidewalks should be separated from vehicular traffic by a minimum 5-foot landscaped buffer or curb. Alternatively, provide shared-use paths of at least 10 feet wide for combined pedestrian and bicycle use. Clearly marked pedestrian crossings should be installed at key points along the internal access road, particularly near building entrances and parking areas. Crossings should include high-visibility striping and, where necessary, speed bumps or signage to alert drivers.

Shared Driveways

Where feasible, adjacent properties must share a single access point to the main road to minimize the number of driveways and reduce conflict points. Shared driveways should be located at property lines or at the farthest feasible distance from intersections to ensure safety.

Fire Department Access

Emergency Vehicle Accommodations

The internal roadway must support a minimum load of 75,000 pounds to accommodate fire apparatus. Provide approved turnaround areas such as cul-de-sacs (minimum 96-foot diameter) or hammerheads at dead ends exceeding 150 feet in length.

Hydrant Access

Install fire hydrants along the internal roadway as required by the local fire code, ensuring they are accessible and unobstructed.

Additional Requirements for High-Traffic Developments

In developments with high traffic volumes or frequent large vehicle access, consider increasing the roadway width to 30 feet to improve safety and traffic flow. Install raised medians within the internal roadway where appropriate to separate opposing traffic flows and provide pedestrian refuges.

Cross-Access Easements

Mandatory Easements

Property owners must provide cross-access easements, legally recorded, to ensure long-term access between adjacent parcels. These easements should be at least 20 feet wide to allow for smooth vehicular movement.

Inter-parcel Connectivity

New commercial developments must include dedicated easement areas for future connections to adjacent properties that are either undeveloped or have not yet provided cross-access.

Pedestrian and Bicycle Connectivity

Sidewalk and Pathway Integration

In addition to vehicular cross-access, developments must provide pedestrian and bicycle paths between adjacent properties. This promotes non-motorized access and reduces the need for short car trips, alleviating congestion on the main road.

Minimum 6-Foot Sidewalks

Sidewalks at least 6 feet wide should be installed to connect parking lots, entrances, and shared access points between adjacent properties.

Access Points for Large-Scale Commercial Developments

Commercial Centers over 10 Acres or with more than 100,000 Square Feet

These large-scale developments should require multiple cross-access points and connections to adjacent properties, reducing the number of direct access points to the main road and ensuring internal circulation between different commercial uses.

No More than Two Direct Driveways

Such large commercial centers should be limited to no more than two direct driveway cuts on any major arterial or collector road, with additional traffic distributed through cross-access routes and internal roads.

INCENTIVES FOR DEVELOPERS

To encourage compliance and proactive implementation of cross-access, Effingham County can offer the following incentives:

- **Density Bonuses**: Developers who provide cross-access and shared driveways may be granted density bonuses, allowing them to increase the building area or reduce setbacks.
- **Parking Flexibility**: Developers who meet cross-access requirements could be offered flexibility in parking ratios, such as shared parking reductions, especially if adjacent properties can share parking areas.
- **Expedited Review**: Projects that include cross-access agreements with adjacent properties could benefit from an expedited review process for site plans and permitting, incentivizing developers to adopt this best practice.

KEY RECOMMENDATIONS

Implement Raised Medians and Turn Lanes

- Medians to Control Left Turns: as traffic volumes increase on major corridors like GA-21, raised medians can be more widely implemented to limit left-turn movements, which are a primary source of crashes. Medians guide vehicles to designated U-turn or left-turn lanes, improving safety and traffic flow.
- Dedicated Turn Lanes: add more dedicated left- and right-turn lanes at key intersections can help reduce disruptions to through traffic and accommodate the increasing number of vehicles using these corridors.

Adopt Access Management Overlay Zones

- Create Overlay Zones for Key Corridors: establish access management overlay zones for high-growth areas along major corridors like GA-21 and GA-119. These zones would have more stringent access regulations, requiring larger setbacks, shared driveways, and limited direct access to high-speed roadways.
- Develop a Corridor Management Plan: A comprehensive corridor management plan could guide future development along key roads, ensuring that access management principles are integrated into new zoning and development approvals. This would preserve the efficiency of key corridors while allowing for growth.

Improve Coordination with State and Regional Agencies

- Enhance Coordination with GDOT: Collaborate closely with the Georgia Department of Transportation (GDOT) to synchronize access management policies, such as traffic signal coordination, installing medians, and enforcing access control standards. This coordination will help mitigate traffic congestion as the region grows
- Partner with Neighboring Counties: Work with neighboring counties like Chatham and Bryan to ensure consistent access management policies across borders, improving regional mobility and preventing traffic bottlenecks.

Update Traffic Impact Study Requirements

- Expand Traffic Impact Study Requirements: For larger developments, update policy to require more rigorous traffic impact studies. These studies should address access management concerns such as driveway spacing, intersection impacts, and necessary improvements like turn lanes or signalization.
- Enforce Mitigation Measures: Developers whose projects are expected to significantly impact traffic must be responsible for necessary improvements, such as additional turn lanes, medians, or traffic signal upgrades.

Incorporate Pedestrian and Bicycle Access

- Promote Multimodal Access: Ensure pedestrian and bicycle access is integrated into the access management plan, especially in growing residential and commercial areas. This could include wider sidewalks, bike lanes, and pedestrian crossing signals to reduce car dependency and enhance safety.
- Safe Pedestrian Crossings: Increase pedestrian crossings with signals and proper markings in areas experiencing increased development to ensure safe pedestrian access across busy roads.

Implement Signal Coordination and Adaptive Systems

- Signal Synchronization: Synchronize traffic signals along major corridors to optimize traffic flow, particularly during peak hours, reducing stop-and-go traffic and improving driver satisfaction.
- Adaptive Signal Technology: As traffic volumes increase, explore adaptive signal systems that adjust signal timings in real-time based on current traffic conditions to improve flow and reduce delays.

Limit Driveway Connections and Promote Access Control

- Limit Driveway Connections: Restrict the number of driveways on major corridors to prevent traffic conflicts and improve safety. Implement right-in/right-out access where necessary, and, where possible, allow left turns in areas with adequate spacing.
- Encourage Inter-Parcel Connectivity: Require or encourage inter-parcel connections and the construction of backage roads to minimize the number of access points on main roadways while ensuring efficient site access for developments.
- Shared Driveways: Where appropriate, promote the use of shared driveways for adjacent properties to limit curb cuts and simplify traffic patterns.

Adopt GDOT Driveway Spacing Guidelines

- Follow GDOT Standards: Adopt GDOT's driveway spacing and configuration guidelines for county roads classified as collectors or higher. These guidelines set minimum distances between driveways and provide criteria for the placement of median openings.
- Access Management for Multi-Lane Roads: Restrict driveway connections on multi-lane roads to right-in/right-out access to improve safety, while allowing left turns only where sufficient spacing exists.

Require Multiple Access Points for Large Developments

- Multiple Access Points: For large developments or subdivisions, establish policies requiring multiple access points to distribute traffic demand across different roads and avoid overloading a single entry/exit.
- Encourage Connections to Multiple Roadways: Wherever possible, developments should provide access points on more than one roadway to promote better traffic distribution and circulation.

DEVELOPMENT STANDARDS FOR ROAD AND DRAINAGE

This framework aims to provide a comprehensive guide for the development and maintenance of roads and drainage systems in Effingham County. It is designed to ensure safe, efficient, and sustainable infrastructure that meets the needs of the community now and in the future. Road and drainage development standards typically cover the design, construction, and maintenance of roadways and drainage systems within a county. They ensure that infrastructure meets safety, durability, and environmental requirements. Key components include:

Roadway Design Standards

- Road Classifications: Definitions of arterial, collector, and local roads with associated design criteria.
- Right-of-Way Widths: Minimum widths required for different road types.
- Pavement Design: Specifications for pavement thickness, materials, and construction methods.
- Geometric Design: Standards for lane widths, shoulder widths, curb and gutter requirements, and intersection design.
- Traffic Control Devices: Guidelines for signage, markings, and signalization.

Drainage Design Standards

- Stormwater Management: Requirements for handling runoff, including detention/retention facilities.
- Culvert and Pipe Sizing: Criteria for sizing drainage structures to handle design storm events.
- Erosion and Sediment Control: Measures to prevent soil erosion during and after construction.
- Environmental Compliance: Guidelines to protect water quality and comply with state and federal regulations.

ADHERENCE TO STANDARDS

Effingham County's road construction must adhere to state and national guidelines to ensure consistency, safety, and quality across the transportation network.

- **GDOT and AASHTO Guidelines**: Follow the Georgia Department of Transportation (GDOT) and American Association of State Highway and Transportation Officials (AASHTO) standards for road and bridge construction, ensuring that roadways are designed to handle the appropriate loads and traffic volumes. AASHTO's base recommendations for pavement design should be referenced, with material selection and design thickness informed by detailed traffic analysis, including volume and type of traffic specific to each roadway.
- **MUTCD Compliance**: Use the Manual on Uniform Traffic Control Devices (MUTCD) for all traffic control devices, including road signage, signals, and pavement markings to ensure uniformity and clarity for drivers and pedestrians.
- **Alignment Standards**: Ensure that sight distance, horizontal and vertical alignment, and lane geometry meet AASHTO standards. This includes proper grading, curve radii, and slope design to maximize safety and road performance.
- **Cul-de-Sac Standards**: For local roads, adhere to specific standards for cul-de-sacs, including minimum turning radius (50 feet), appropriate grades (maximum 8%), and the provision of pedestrian pathways.

ROADWAY DESIGN STANDARDS

These specific roadway design standards are designed to guide the construction, maintenance, and improvement of roads in Effingham County. These standards aim to enhance safety, improve traffic flow, and accommodate current and future growth.

ROAD CLASSIFICATIONS AND DESIGN CRITERIA

Arterial Roads

Arterial roads are designed to provide high-capacity connections between cities and regions, handling significant volumes of through-traffic. These roads serve as the primary routes for long-distance travel and link major activity centers, such as cities, commercial hubs, and industrial areas. They also facilitate regional traffic movements by connecting to state highways and interstates.

- **Design Speed**: 45-55 mph, depending on location and surrounding development.
- **Lane Width**: 12 feet minimum.
- **Shoulder Width**: 2 feet paved with 8-10 feet unpaved (depending on urban/rural setting)
- **Right-of-Way Width**: 120-160 feet minimum, to accommodate future widening, utilities, and pedestrian/bicycle facilities.
- **Turn Lanes**: Required at all major intersections and access points to large developments.
- **Median**: Raised medians are encouraged to control left-turn movements and improve safety.
- **Access Control**: Strict access management with limited driveway connections and controlled intersections to maintain high traffic speeds.
- **Pedestrian Facilities** Required along the corridor, with a minimum 5-foot sidewalk on both sides in urbanized areas.
- **Intersection Spacing**: Minimum of 1,000 feet between signalized intersections to prevent congestion and ensure smooth traffic flow.

Major Collector Roads

Major collector roads serve to gather traffic from local roads and funnel it to the arterial roads. These roads balance traffic movement and property access, handling moderate traffic volumes. They often serve residential neighborhoods, commercial centers, and schools while connecting to arterial roads.

- **Design Speed**: 45-55 mph.
- **Lane Width**: 12 feet.
- **Shoulder Width**: 2 feet paved with 6 feet unpaved (depending on urban/rural setting).
- **Right-of-Way Width**: 75-110 feet minimum, depending on anticipated traffic volumes and future expansion needs.
- **Turn Lanes**: Recommended at intersections with significant traffic, especially at intersections with arterial roads or high-traffic commercial areas.
- **Access Control**: Moderate control, with driveway spacing standards to prevent congestion. Shared access points between developments are encouraged.
- **Pedestrian Facilities**: 5-foot sidewalks required on both sides in urban and suburban areas.

Minor Collector Roads

Minor collectors are designed to collect traffic from local roads and distribute it to major collectors or arterials. These roads typically serve rural or lower-density areas, providing access to residential neighborhoods, small commercial areas, and rural developments.

- **Design Speed**: 35-45 mph.
- **Lane Width**: 11 feet.
- **Shoulder Width**: 2 feet paved with 5-6 feet unpaved (depending on urban/rural setting).
- **Right-of-Way Width**: 60-80 feet minimum, depending on anticipated traffic volumes and future expansion needs.
- **Turn Lanes**: Not typically required, except at key intersections or access points to high-volume locations.
- **Access Management**: Driveways and minor intersections are more frequent than on major collectors, but shared driveways are encouraged to reduce access points.

- **Pedestrian Facilities**: Sidewalks may be required depending on surrounding development, particularly near schools and parks.
- **Intersection Spacing**: Minimum 400 feet between intersections, allowing for lower traffic volumes but ensuring safety and visibility.

Local Roads

Local roads are designed primarily for direct access to residential and commercial properties. These roads handle low traffic volumes and prioritize property access over traffic movement. They are typically found within neighborhoods and small commercial developments.

- **Design Speed**: 25-35 mph.
- **Lane Width**: 11 feet.
- **Shoulder Width**: 2 feet paved with 0-3 feet unpaved (depending on urban/rural setting).
- **Right-of-Way Width**: 60-70 feet minimum, depending on anticipated traffic volumes and future expansion needs.
- **Turn Lanes**: Not required unless traffic volumes exceed 3,000 vehicles per day.
- **Access Control**: Minimal control, with a focus on providing driveway access to individual properties. However, cul-de-sacs and shared driveways are encouraged in certain developments to reduce access points.
- **Pedestrian Facilities**: Sidewalks required in urban and suburban developments (minimum 5 feet wide); optional in rural areas.
- **Intersection Spacing**: Minimum 300 feet between intersections, with provisions for safe pedestrian crossings where applicable.

Low Volume Roads

Low volume roads primarily serve areas outside of densely developed areas, providing access to agricultural, rural residential, and natural resource lands. They accommodate low to moderate traffic volumes, including agricultural vehicles and trucks.

- **Design Speed**: 40-55 mph.
- **Lane Width**: 18 ft two-way travel way <2500 ADT.
- **Shoulder Width**: 0-3 feet, with unpaved shoulders.
- **Right-of-Way Width**: 36-40 feet depending on location and anticipated traffic growth.
- **Turn Lanes**: Not typically required but may be necessary near intersections with higher classifications (e.g., arterial roads).
- **Access Management**: Limited control, with driveway connections for farms, residences, and small businesses.
- **Pedestrian Facilities**: Not required, but consideration for shared-use paths along scenic or recreational routes is encouraged.
- **Intersection Spacing**: Minimum 600 feet, with focus on maintaining visibility in rural landscapes.

Low Volume Dirt or Ash Roads

Low volume dirt or ash roads primarily serve areas outside of densely developed areas, providing access to agricultural, rural residential, and natural resource lands. They accommodate low traffic volumes, less than 250 vehicles per day, including agricultural vehicles and trucks.

- **Design Speed**: 25 mph.
- **Lane Width**: 18 ft two-way travel way
- **Shoulder Width**: 0-3 feet, with unpaved shoulders.
- **Right-of-Way Width**: 34 feet minimum.
- **Turn Lanes**: Not required.

Low Volume with Chip Seal Treatment Roads

Low volumes roads primarily serve areas outside of densely developed areas, providing access to agricultural, rural residential, and natural resource lands. They accommodate low to moderate traffic volumes, 250 vehicles per day to 2500 vehicles per day, including agricultural vehicles and trucks.

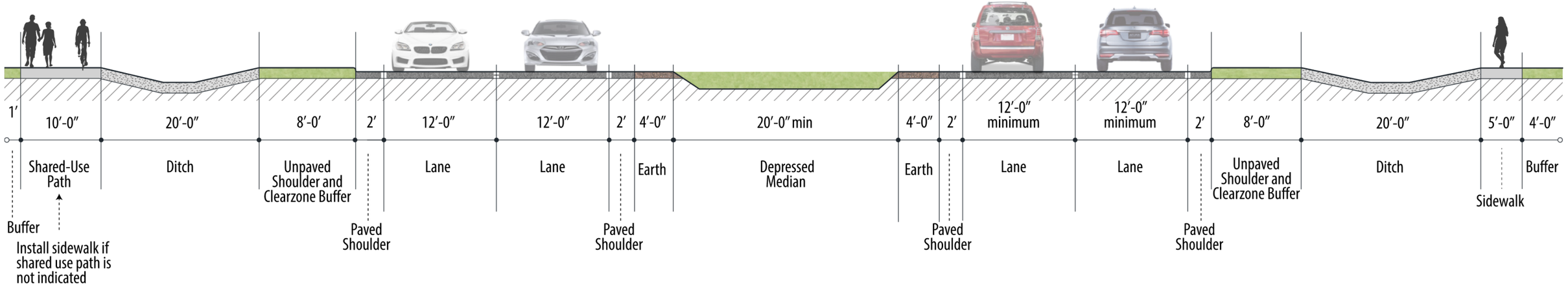
- **Design Speed**: 25 mph.
- **Lane Width**: 18 ft two-way travel way
- **Shoulder Width**: 3 feet, with unpaved shoulders.
- **Right-of-Way Width**: 40 feet minimum.
- **Turn Lanes**: Not required.

Additionally, the American Association of State Highway and Transportation Officials (AASHTO) "Guidelines for Geometric Design of Low-Volume Roads" can be referenced for additional information on low volume roadway design.

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path or bike lanes where indicated in the Effingham County Bicycle and Pedestrian Plan.

Drainage under driveways shall be piped with no driveway swales permitted.

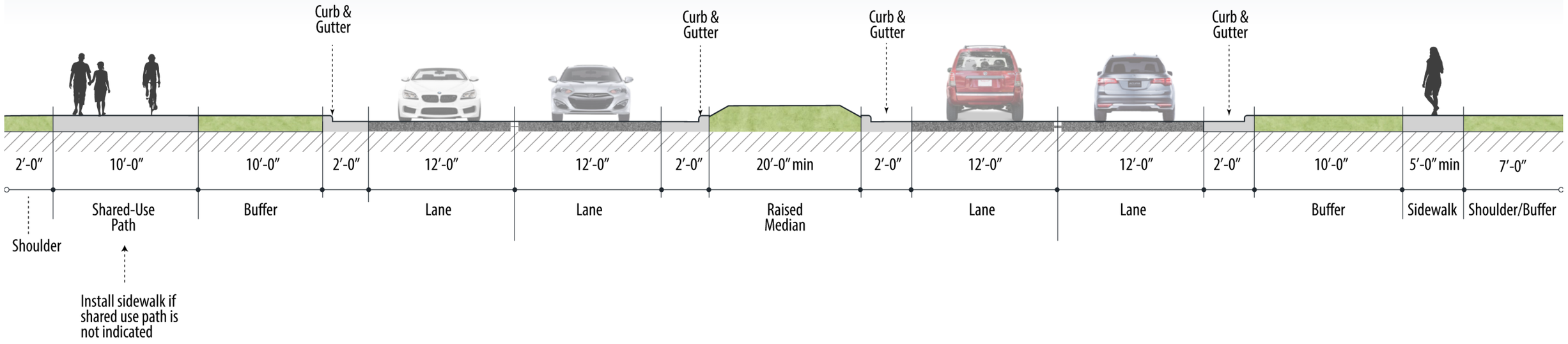


Arterial - Rural Road Cross Section
(3,000-14,000 vpd, 55 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path or bike lanes where indicated in the Effingham County Bicycle and Pedestrian Plan.

Curb & Gutter shall be 2 ft gutter section with a 6 in curb with the latter being part of the adjacent ground or median measurement.



Arterial - Urban Road Cross Section
(10,000-36,000 vpd, 45 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

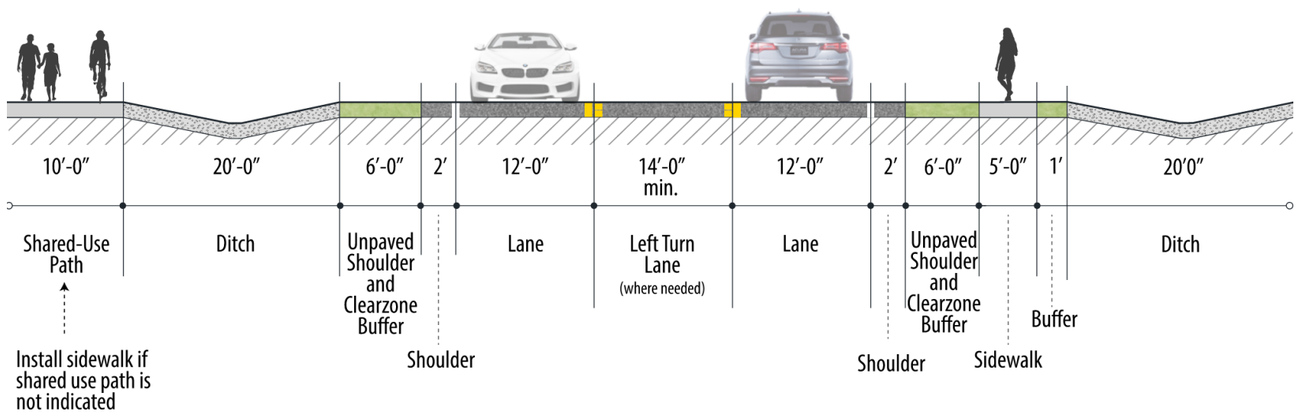
Include Shared-Use Path or bike lane where indicated in the Effingham County Bicycle and Pedestrian Plan.

Sidewalk to be included on one or both sides of road, if needed, per direction of Effingham County.

Where Shared Use Path is used, location of far side of ditch is desirable.

Where a multi-lane major collector is present, the minor arterial cross-section shall be used.

Drainage under driveways shall be piped with no driveway swales permitted.



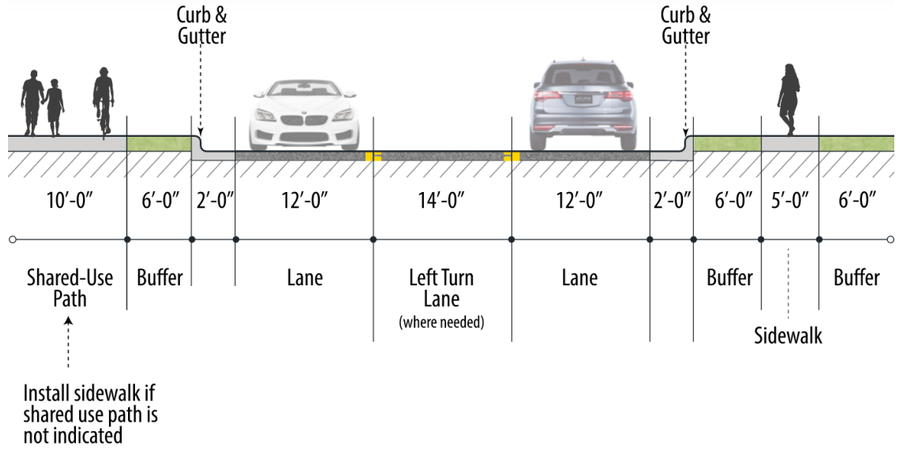
Major Collector - Rural Road Cross Section (2,500-6,300 vpd, 55 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path or bike lane 4here indicated in the Effingham County Bicycle and Pedestrian Plan.

Where a multi-lane major collector is present, the minor arterial cross-section shall be used.

Curb & Gutter shall be 2 ft gutter section with a 6 in curb with the latter being part of the adjacent ground measurement.



Major Collector - Urban Road Cross Section (6,300-10,000 vpd, 45 MPH TYP.)

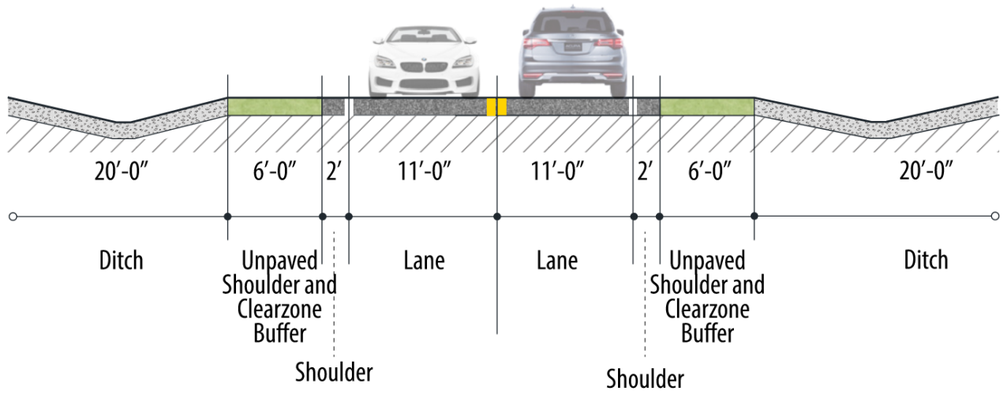
The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path where indicated in the Effingham County Bicycle and Pedestrian Plan.

Sidewalk to be included on one or both sides of road if needed per direction of Effingham County.

Where Shared-Use Path is used, location on the far side of ditch is desirable.

Drainage under driveways shall be piped with no driveway swales permitted.



80' min ROW

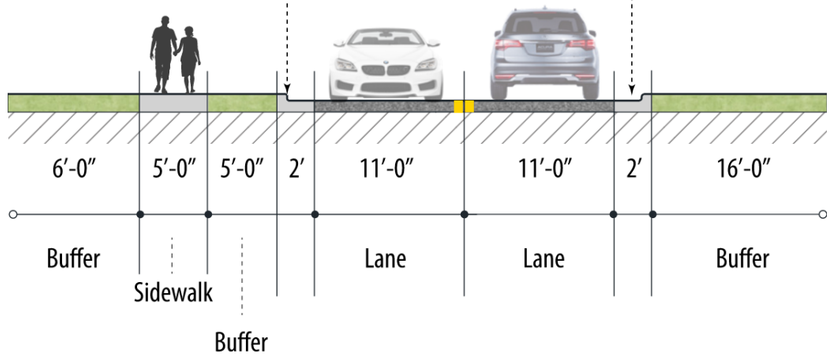
Requirements would increase by 11 ft if a left turn lane is needed.

Minor Collector - Rural Road Cross Section (250-2,500 vpd, 45 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path where indicated in the Effingham County Bicycle and Pedestrian Plan.

Sidewalk to be included on one or both sides of road per direction of Effingham County.



60' min ROW

Requirements would increase by 11 ft if a left turn lane is needed

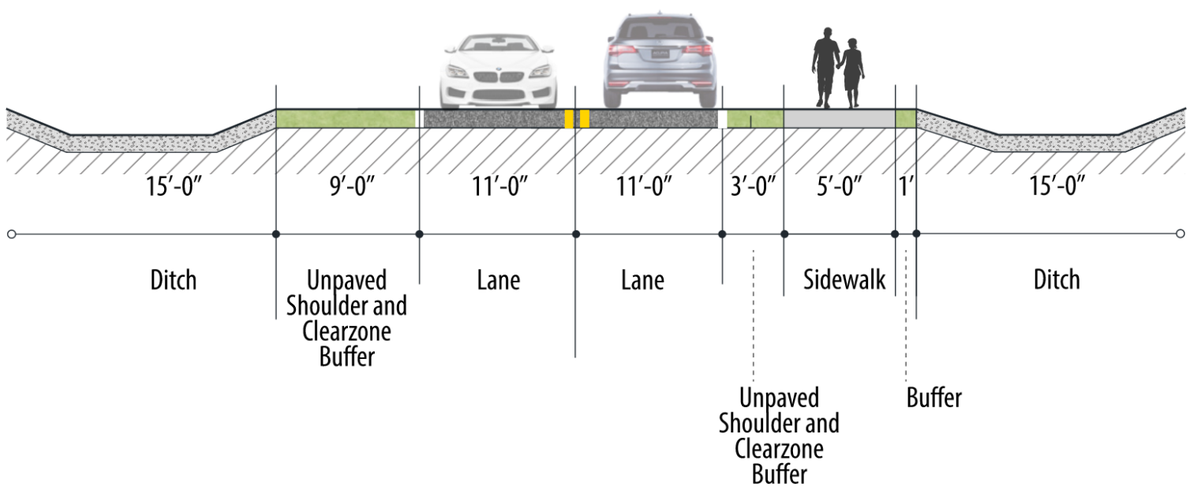
Minor Collector - Urban Road Cross Section (1,100-6,300 vpd, 35 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path where indicated in the Effingham County Bicycle and Pedestrian Plan.

Sidewalk to be included on one or both sides of road if needed per direction of Effingham County.

Where a multi-lane local road is present, the minor arterial cross-section shall be used.



Local - Rural Road Cross Section (250-2,500 vpd, 35 MPH TYP.)

The distance from the edge of the traveled way to the location of any fixed object (clear zone) is dependent on several factors. This distances shown here are minimums reflecting typical level conditions and may need to be adjusted to meet clear zone standards as defined in A Policy on Geometric Design of Highways and Streets, the Green Book, latest edition, by the American Association of State Highway and Transportation Officials (AASHTO).

Include Shared-Use Path where indicated in the Effingham County Bicycle and Pedestrian Plan.

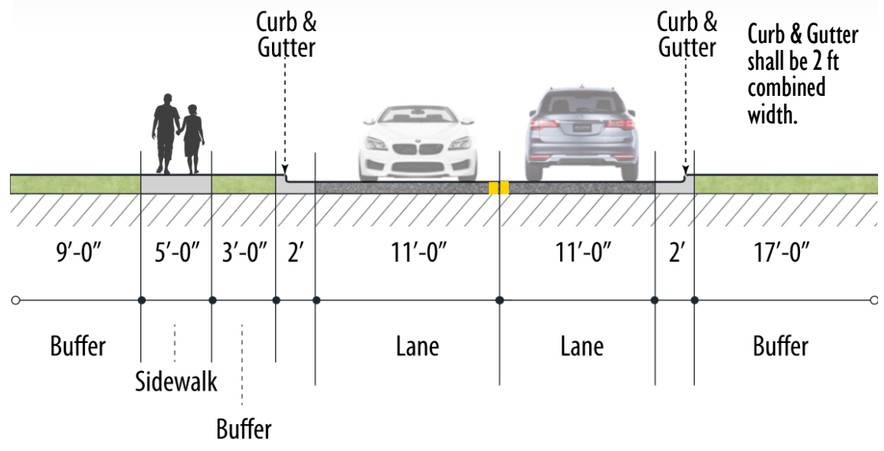
Sidewalk to be included on one or both sides of road per direction of Effingham County.

Where a multi-lane local road is present, the minor arterial cross-section shall be used.

8ft parking lanes will be provided where required in zoning ordinance.

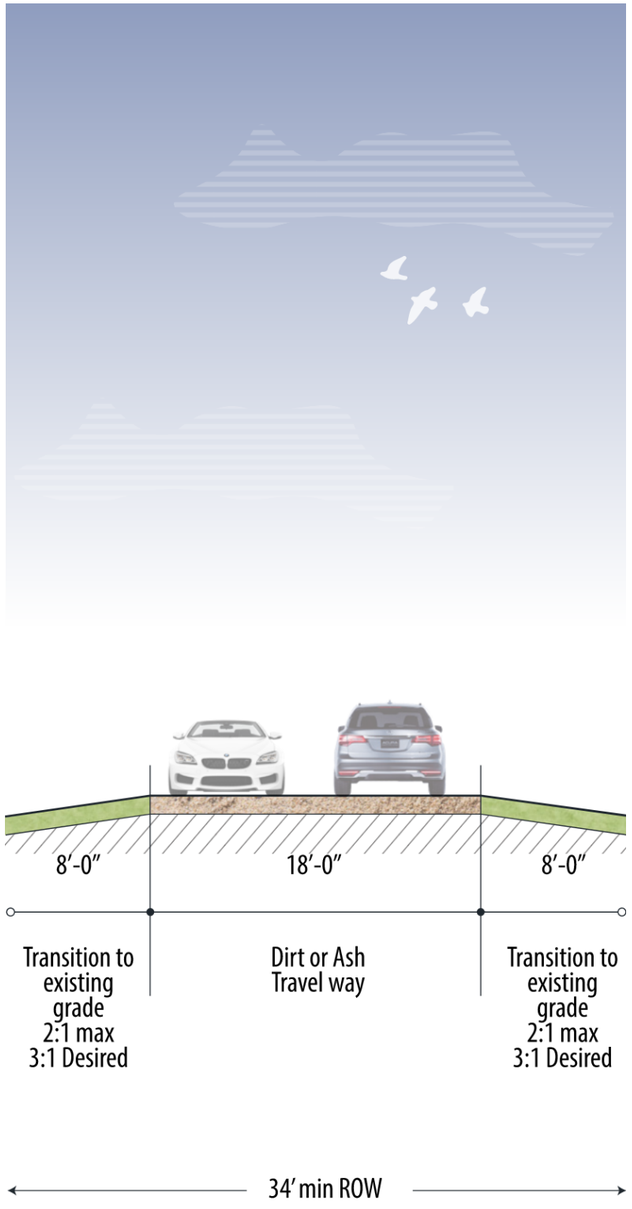
Street trees may be added where desired.

Drainage under driveways shall be piped with no driveway swales permitted.

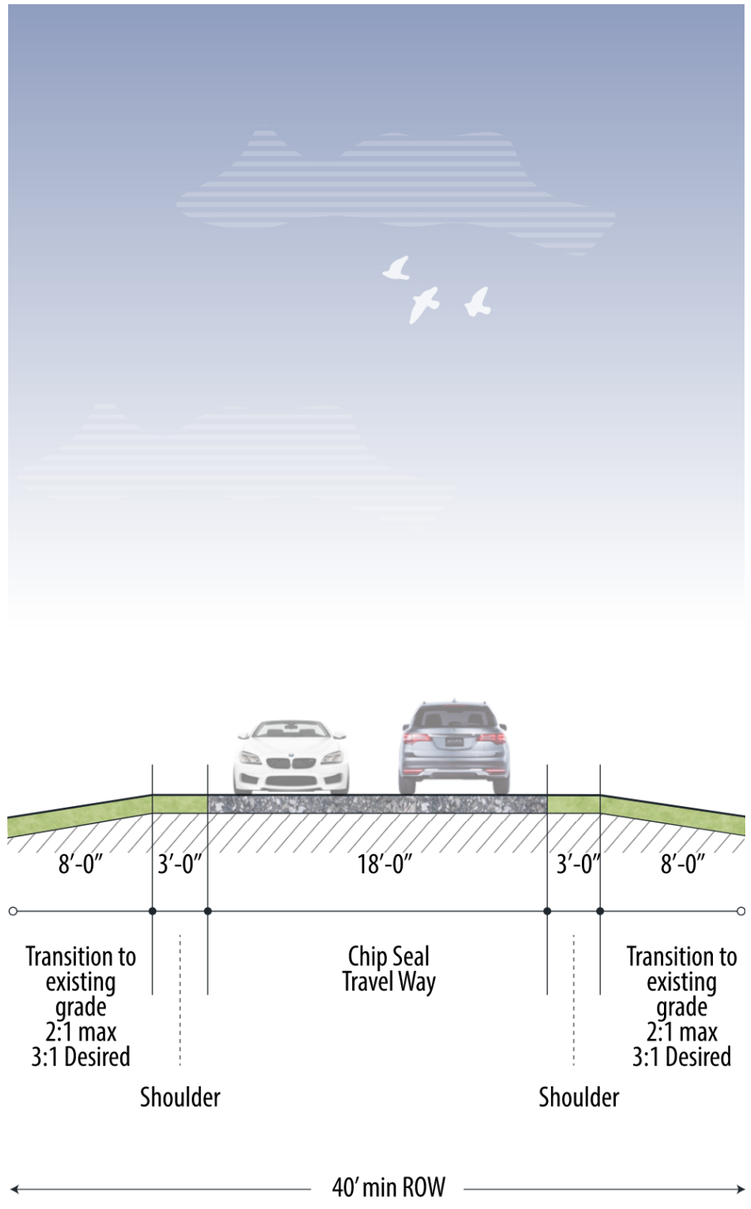


Requirements would increase by 11 ft if a left turn lane is needed.

Local - Urban Road Cross Section (250-2,500 vpd, 25 MPH TYP.)



Low Volume Dirt or Ash Road (<250 vpd, 25 MPH TYP.)



Low Volume Road with Chip Seal Treatment (250 vpd to 2500 vpd, 25 MPH TYP.)

Additional Design Considerations

Median Design

Raised medians are encouraged on all arterial and high-traffic collector roads to prevent left-turn conflicts and improve traffic flow. Minimum 10 feet wide on arterial roads to accommodate turn lanes or landscaping.

Roundabouts

Roundabouts should be considered at key intersections where traffic volumes are high, but signalization is unnecessary. They reduce conflict points and improve safety while maintaining traffic flow.

Multimodal Integration

All roads classified as collector or higher should be designed with multimodal transportation in mind, including sidewalks and bike lanes in urban and suburban areas. Local roads within developments should provide safe pedestrian routes, connecting to larger roadways and public facilities. Pedestrian facilities should be designed to align with the surrounding context, whether in rural areas without curb and gutter or urban areas with curb and gutter cross-sections. Bicycle and pedestrian facilities will be provided according to the county's bicycle and pedestrian plan.

Complete Streets

Sidewalks and sidepaths/multiuse paths shall be prioritized to support safe and accessible routes for all users. Multiuse paths must have a minimum width of 10 feet, with a preferred width of 12 feet, and should be placed at a safe distance from roadways to accommodate both pedestrian and cyclist traffic effectively.

Environmental Considerations

Roads should be designed with proper drainage in mind, including culverts and swales along shoulders. Landscaping: Incorporate landscaping along roadways, particularly in medians and buffer zones, to improve aesthetics and reduce the urban heat island effect.

RIGHT-OF-WAY STANDARDS

Right-of-Way (ROW) widths are crucial to accommodate current and future road construction needs, including roadways, drainage systems, utilities, multimodal facilities, and buffer zones. These standards ensure that Effingham County's road network can safely and effectively serve growing traffic demands while supporting sustainable development. ROW widths are required to accommodate road construction, drainage, utilities, and future expansions. ROW should also account for bike lanes, pedestrian pathways, and buffer zones.

Arterial Roads

This ROW includes vehicle lanes, medians, sidewalks, bike lanes, utilities, drainage infrastructure, and buffer zones for landscaping.

- **Minimum ROW**: 120-160 feet.
- **Utilities**: Space is allocated for the installation and maintenance of utilities such as water lines, sewer pipes, electric transmission lines, and telecommunications.
- **Pedestrian Pathways**: Sidewalks (minimum 5 feet wide) and bike lanes (minimum 4 feet wide) must be included, with additional buffer space between roadways and paths.
- **Drainage**: Ensure that drainage systems, such as ditches, culverts, and stormwater management facilities, are integrated into the ROW to mitigate flooding risks and manage stormwater runoff effectively.

Collector Roads

ROW for collector roads includes travel lanes, sidewalks, bike lanes, utilities, and drainage facilities.

- **Minimum ROW**: 60-110 feet.
- **Utilities**: Ensure sufficient ROW for utility infrastructure, including underground or overhead electric, water, sewer, and stormwater facilities.
- **Pedestrian Pathways**: Sidewalks (minimum 5 feet wide) are required on both sides of the road, with optional bike lanes based on the surrounding development.
- **Drainage**: Drainage ditches, swales, or stormwater systems must be accommodated within the ROW to control runoff and erosion.

Local Roads

This ROW includes travel lanes, sidewalks, utilities, and buffer zones.

- **Minimum ROW**: 34-70 feet.
- **Utilities**: Allocate space for utility lines and future expansion needs. Shared utility corridors should be considered to reduce the number of access points required.
- **Pedestrian Pathways**: Sidewalks (minimum 5 feet wide) are required in urban and suburban developments, and optional in rural settings.
- **Drainage**: Design drainage features to handle runoff without encroaching on private properties, using culverts, small ditches, or bioswales as needed.

Buffer Zones

Buffer zones are essential for separating roadways from pedestrian and bicycle paths, utility installations, and adjacent properties. They improve safety and enhance the visual appeal of road corridors.

- Arterial Roads: Minimum of 8-10 feet between the road edge and pedestrian or bike paths.
- Collector Roads: Minimum of 5-6 feet of buffer between the road and sidewalks or bike lanes.
- Local Roads: A minimum of 0-3 feet of buffer space is recommended, especially in suburban and urban environments.

Tree species planted within ROW buffer zones must align with GDOT's recommended species list, prioritizing trees that are low-maintenance, resilient to local conditions, and pose minimal interference with utilities.

Utilities

The planting of trees directly above utility lines is prohibited. Sidewalks may be installed over utilities, provided they are designed to maintain adequate access for future maintenance and repairs. Utilities shall not be placed under roadways to prevent interference with road integrity and maintenance. Utility lines should be placed within the ROW but positioned to minimize conflicts with road infrastructure.

PAVEMENT DESIGN AND MATERIALS

Pavement design standards are established to ensure the longevity and durability of the road network. Pavement thickness, materials, and construction methods are critical to road performance. All materials used in road construction must meet GDOT and AASHTO standards. All soil testing should align with the standards specified in the Georgia Soil and Water Conservation Commission's 'Manual for Erosion and Sediment Control in Georgia' (the 'Blue Book'). Additionally, as of July 2024, all stormwater and drainage structures within the Right-of-Way (ROW) shall be constructed exclusively with concrete to ensure long-term durability and alignment with updated material standards.

Pavement Thickness

- Arterial Roads: Minimum 10 inches of asphalt or 8 inches of concrete, based on traffic volume projections.
- Collector Roads: Minimum 8 inches of asphalt or 6 inches of concrete.
- Local Roads: 6 inches of asphalt, with consideration for additional thickness in areas subject to higher traffic volumes.

For roads serving 20 or more lots, including phased subdivisions or developments, heavy pavement standards should be applied to ensure sufficient load-bearing capacity. Pavement thickness and material selection should reflect the expected Level of Service (LOS) to maintain road durability and accommodate increased traffic demand.

Subgrade and Base Preparation

- **Subgrade:** Must be compacted to at least 95% of the standard Proctor density. to ensure a stable foundation. Any subgrade showing weak or unstable soils should be stabilized using lime or cement treatment to enhance load-bearing capacity. Soil tests must be conducted to confirm density and stability before base layer installation.
- **Base Course**: Minimum of 6 inches of crushed aggregate base for residential areas and light commercial traffic, 8 inches for collectors, and 12 inches for arterials to provide a strong foundation.

Material Specifications

- **Subgrade**: Soils must be stabilized using appropriate treatments such as lime or cement for areas with poor soil conditions. Stabilization improves compaction and reduces the risk of subgrade failure over time. Post-stabilization, soil density and moisture content must be tested to confirm compaction and suitability.
- **Asphalt**: Follow GDOT's "Superpave" guidelines for asphalt mix design, including specifications for aggregate gradation and binder selection. Use Superpave asphalt mixes to withstand temperature fluctuations and high traffic loads. Ensure proper binder selection based on the expected temperature range in Effingham County.
- **Concrete**: All concrete used for roadways and bridge structures must have a minimum compressive strength of 4,000 psi to ensure durability and load-bearing capacity. Reinforced concrete may be required for areas with high traffic volumes or significant loads to prevent cracking and deformation.

Inspections

- **Pre-Construction**: Inspect subgrade and base layers for compaction, grading, and material quality before asphalt or concrete is placed. Ensure that the base is free of debris, properly graded, and meets specified thickness requirements.
- **Core Sampling**: After paving is complete, conduct core samples at designated intervals to verify that the pavement thickness meets the specified standards for arterial, collector, and local roads. Test the core samples for material quality, ensuring the asphalt or concrete used meets the required GDOT and AASHTO standards for strength, durability, and performance.
- **Erosion Control Inspections**: Erosion control measures must be regularly inspected during construction to prevent sediment from entering drainage systems or waterways. Ensure permanent erosion control systems, such as vegetation or sediment basins, are in place and function effectively to protect surrounding ecosystems.

Geometric Design Standards

Geometric design plays a crucial role in the safety, functionality, and efficiency of roads. These standards govern the layout of roadways, including lane and shoulder widths, intersection geometry, and sight distances, to ensure the county's roads meet traffic demands and safety requirements.

Lane Width

Lane width affects both traffic capacity and safety, especially as traffic volumes and vehicle sizes vary between arterial, collector, and local roads.

Arterial Roads

- Minimum Width: 12 feet per lane.
- Designed to accommodate higher speeds and large commercial vehicles. Wider lanes reduce the risk of collisions and allow smoother traffic flow.

Collector Roads

- Minimum Width: 11-12 feet per lane.
- Collector roads manage moderate traffic volumes and provide a balance between accessibility and mobility. Lane widths should allow safe passage of both passenger vehicles and occasional larger vehicles like buses or delivery trucks.

Local Roads

- Minimum Width: 11 feet per lane.
- Local roads primarily serve residential areas with lower traffic speeds. Narrower lanes promote slower speeds and greater neighborhood safety while still accommodating standard vehicles.

Shoulder Width

Arterial Roads

- Minimum Width: 8-10 feet, with paved shoulders in urban areas.
- Arterial roads handle high traffic volumes and higher speeds, so wider, paved shoulders improve safety, provide space for breakdowns, and accommodate emergency stops.

Collector Roads

- Minimum Width: 5-6 feet, with optional paved shoulders.
- Collector roads may or may not require fully paved shoulders depending on their urban or rural context. Wider shoulders are preferred in areas with moderate traffic, especially near schools and commercial zones.

Local Roads

- Minimum Width: 0-3 feet, with optional curb and gutter.
- Local roads handle lower speeds and volumes, so narrower shoulders or curb and gutter systems are typically sufficient. In urban or suburban environments, curbs may provide a more appropriate boundary.

Intersection Design

Intersections are critical points where road safety is paramount. Proper design ensures smooth traffic flow and minimizes the risk of accidents.

Turning Radius

- Local Roads: Minimum turning radius of 25 feet.
- Collector Roads: Minimum turning radius of 30 feet.
- Arterial Roads: Minimum turning radius of 35 feet.
- Larger turning radii on higher classification roads allow for safer and smoother turning movements, especially for larger vehicles like trucks and buses. This prevents the need for vehicles to encroach on opposing lanes during turns, reducing collision risks.

Sight Distance

- All intersections must meet AASHTO standards for horizontal and vertical alignment, ensuring clear and unobstructed sight distances.
- Proper sight distances are essential for safe stopping and decision-making at intersections. Clear visibility reduces the likelihood of accidents, particularly at unsignalized intersections.

Roundabouts

- Roundabouts are encouraged at high-traffic intersections to improve safety and reduce delays.
- Roundabouts reduce the severity of collisions by lowering speeds and eliminating dangerous left turns. They also improve traffic flow by minimizing stop-and-go situations typical of signalized intersections. Encouraged at high-traffic intersections to improve safety and reduce delays.

Additional Geometric Design Considerations

Cross-Slope

- A 2% cross-slope should be applied across all roadways to facilitate proper drainage, preventing water from pooling on the road surface and reducing the risk of hydroplaning.

Vertical Alignment

- Vertical curves should meet AASHTO standards, providing adequate visibility and stopping sight distances for vehicles traveling at the designated road speeds.
- Proper vertical alignment enhances visibility over hills or valleys, ensuring drivers can react safely to obstacles or other vehicles.

Horizontal Alignment

- Horizontal curves must also adhere to AASHTO guidelines, ensuring safe vehicle handling at the design speed.
- Appropriate curve radius and banking reduce the risk of vehicles skidding off the road, particularly at higher speeds.

Traffic Control Devices and Signalization

Traffic control devices and signalization systems are critical components in ensuring road safety, managing traffic flow, and improving efficiency on Effingham County's road network. All traffic control devices, including signage, pavement markings, and traffic signals, must adhere to the Manual on Uniform Traffic Control Devices (MUTCD) standards, ensuring consistency and reliability across all roads.

Traffic Signals

Signalized Intersections

- All traffic signals installed must comply with the standards and guidelines set forth in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) as adopted by the Federal High Administration (FHWA).
- Consider adaptive signal technology at high-traffic intersections to manage peak-hour traffic.
- High-traffic intersections on arterial roads benefit from traffic signals to manage congestion and enhance safety, especially where turning movements or pedestrian crossings are frequent.
- All traffic signals must include appropriate turn phases (left-turn phasing where necessary) and pedestrian signal heads with countdown timers in areas with high foot traffic.

Signal Phasing and Coordination

- On arterial corridors, signals should be coordinated (or synchronized) to allow smooth progression of traffic at consistent speeds, particularly during peak travel times. Proper signal coordination minimizes stop-and-go traffic, reducing fuel consumption, improving traffic flow, and enhancing driver satisfaction.
- Protected left-turn signal phases are recommended at intersections with high turning volumes to prevent collisions and improve safety. Dedicated left-turn signals help to reduce conflicts between turning vehicles and oncoming traffic, improving safety and reducing intersection delays.

Pedestrian Signals

- Pedestrian signals, including audible pedestrian signals (APS) and countdown timers, are required at intersections in urban areas or near schools, parks, or other pedestrian-heavy zones. APS and countdown timers enhance pedestrian safety by providing clear and accessible information for crossing, particularly for visually impaired individuals. They also help manage the flow of foot traffic in high-density areas.

Signage Standards

Traffic signs provide vital information and instructions to roadway users. All signage must comply with MUTCD guidelines to ensure standardization and visibility.

Stop Signs

- Stop signs are required at all major intersections on local and collector roads, particularly where traffic volumes, visibility, or pedestrian activity warrant additional control.

Speed Limit Signs

- Speed limit signs must be posted on all roads at regular intervals, especially when transitioning between different speed zones (e.g., from rural to suburban areas). Clear speed limit signage helps maintain consistent traffic speeds, reducing the likelihood of speed-related accidents. Changes in speed limits should be indicated well in advance of transitions, especially near schools, parks, and residential areas.

Warning Signs

- Curve, Hill, and Intersection Warning Signs should be placed at locations with reduced visibility or sharp turns, warning signs alert drivers to upcoming changes in road alignment or traffic conditions. Warning signs improve driver awareness, giving them ample time to adjust speed or positioning, thus enhancing safety on challenging roadway segments.

Pavement Marking Standards

Pavement markings guide road users and delineate lanes, crosswalks, and other road features. Properly maintained markings improve safety and traffic flow by clearly defining areas for different users.

Lane Markings

- Lane markings must be highly visible and use retroreflective materials to ensure visibility in low-light or adverse weather conditions. Clearly marked lanes help reduce lane departure accidents, improve traffic flow, and guide drivers through complex intersections.

Crosswalks

- Clearly marked crosswalks are required at all intersections in pedestrian-heavy areas, with additional markings provided at mid-block crossings where foot traffic is significant.
- Crosswalks should be wide (minimum 6 feet) and clearly visible, using high-visibility striping (e.g., ladder or zebra patterns).
- Tactile paving must be installed at all crosswalks to meet ADA compliance, providing detectable warnings and audible signals for visually impaired pedestrians. Well-marked crosswalks enhance pedestrian safety by clearly indicating where pedestrians have the right of way. Tactile paving improves accessibility and helps all pedestrians navigate busy intersections safely.

Stop Bars

- Stop bars must be placed at all stop-controlled and signalized intersections to indicate where vehicles should stop in relation to crosswalks and intersections. Stop bars provide clear visual cues for drivers, preventing them from encroaching into crosswalks or intersections and improving pedestrian safety.

Bike Lane Markings

- Bike lanes must be clearly marked with dedicated lane markings and bicycle symbols on all arterial and collector roads where bike lanes are provided. Dedicated bike lanes, marked with high-visibility symbols and lines, reduce conflicts between vehicles and cyclists, improving safety and promoting multimodal transportation.

Pedestrian and Bicycle Signalization

Pedestrian Signal Heads

- Pedestrian signal heads with countdown timers are required at all signalized intersections with crosswalks, particularly in urban areas or near schools and commercial centers. Countdown timers improve pedestrian safety by indicating the time remaining to cross, reducing uncertainty and improving compliance with traffic signals.

Bicycle Signalization

- Install bicycle-specific signals at intersections where bike lanes intersect with arterial or collector roads to manage the interaction between cyclists and vehicles. Dedicated bicycle signals provide cyclists with clear instructions on when it is safe to proceed through intersections, reducing conflicts and improving safety for all road users.

Road Materials and Construction

The quality and durability of the materials used in road construction are critical to minimizing maintenance and ensuring the long-term safety and functionality of the infrastructure.

Materials

Use high-quality, durable materials such as Superpave asphalt or reinforced concrete to minimize long-term maintenance and repair needs. Follow GDOT and AASHTO guidelines for subgrade preparation, base course installation, and pavement thickness. Ensure proper soil stabilization where required and implement best practices in material placement and compaction to ensure longevity.

- **Subgrade**: Stabilized to ensure durability, particularly in areas with poor soil conditions. Compacted to a minimum of 95% density.
- **Base**: A minimum of 6 inches of crushed aggregate for local roads, 8 inches for collectors, and 12 inches for arterials.
- **Pavement**: 6-10 inches of asphalt or 8 inches of concrete based on road classification and anticipated traffic volumes.

Construction Standards

Conduct mandatory inspections at critical stages of construction (subgrade, base, and paving) to verify adherence to design specifications. Take core samples to verify pavement thickness and material quality, ensuring the roadway meets the required durability standards. Compaction tests required at multiple stages to ensure subgrade and base meet compaction standards.

Accessibility and ADA Compliance

Effingham County is committed to ensuring that its roadways are accessible and safe for all users, regardless of mobility.

Curb Ramps

Curb ramps are required at all intersections where sidewalks are present, ensuring safe transitions between pedestrian pathways and road crossings. Crosswalks must comply with ADA standards, with ramps oriented directly across the crosswalk rather than within the curb radius. This requirement should be incorporated into the design phase to ensure compliance and safety for all users.

ADA Compliance

Ensure all new roadways and retrofits are designed to comply with the Americans with Disabilities Act (ADA) standards. This includes the installation of curb ramps, tactile paving at crosswalks and intersections, and adequate slope gradients for wheelchair access.

Implementation and Compliance

Effingham County ensures compliance with roadway standards through an effective permitting, inspection, and enforcement process.

Permitting

Roadway projects must go through a formal permitting process, with detailed plans submitted for review. Permits will only be issued when plans meet all applicable standards.

Enforcement

Developers who fail to adhere to the approved design standards will be subject to penalties, fines, and corrective actions. Additionally, developers are responsible for maintaining the road infrastructure during a specified warranty period.

Final Approvals

Final inspections will be conducted, and roads will only be approved for public use when all standards are fully met.

Drainage Design Standards

Proper drainage is essential for the longevity and safety of roadways, as well as for the protection of surrounding properties and the environment. The following drainage design standards ensure that stormwater is managed effectively, reducing risks of flooding, erosion, and environmental damage. These standards must comply with local, state, and federal regulations, including the Clean Water Act and Georgia Department of Natural Resources guidelines.

STORMWATER MANAGEMENT

Effective stormwater management is critical for controlling runoff, preventing flooding, and minimizing erosion. Drainage systems should be designed to manage both the quantity and quality of stormwater.

- Design drainage systems to manage stormwater effectively, reducing the risk of flooding and erosion.
- Continue to update and incorporate green infrastructure solutions, such as bioswales, rain gardens, and permeable pavements, to enhance stormwater infiltration and reduce runoff.

Detention and Retention Ponds

- Require detention and retention facilities are required for all new developments and road projects to control runoff, store excess stormwater, and prevent downstream flooding.
- Ponds must be sized based on the 25-year, 24-hour storm event for minor systems and 50-year, 24-hour storm event for major systems. This ensures sufficient capacity to handle extreme weather conditions.
- **Retention Ponds**: Designed to permanently retain water and slowly release it, improving water quality by allowing sediment to settle.
- **Detention Ponds**: Temporarily store stormwater and release it at a controlled rate, reducing peak flow rates and mitigating flooding risks.

Bioswales and Rain Gardens

- Incorporate bioswales and rain gardens into the roadway and development design to enhance stormwater infiltration and reduce surface runoff.
- Bioswales should be designed based on site-specific conditions, including soil type, permeability, and drainage capacity. They should be lined with permeable soil and vegetation to filter pollutants, with a slope of no more than 3:1 to ensure safe flow control.
- Position bioswales strategically along roadways and parking lots to capture and treat runoff before it reaches larger stormwater systems.

Green Infrastructure

- Encourages the use of green infrastructure to reduce the environmental impact of roadways. This includes permeable pavements, green roofs, and constructed wetlands where applicable.
- **Permeable Pavements**: Should be used in low-traffic areas such as parking lots and walkways to allow stormwater to infiltrate directly into the ground, reducing runoff volume.
- **Constructed Wetlands**: Can be incorporated into large-scale projects to naturally filter stormwater and provide habitat for local wildlife.

DRAINAGE SYSTEM DESIGN

The design of drainage systems, including culverts, storm drains, and channels, must be capable of handling the expected storm events while minimizing environmental disruption.

Culverts and Pipes

Culverts and drainage pipes must be sized to handle stormwater from the 10-year, 24-hour storm event for local roads and the 25-year, 24-hour storm event for collector and arterial roads. In flood-prone areas or critical infrastructure, design for the 50-year, 24-hour storm event.

- Minimum Pipe Diameter: 18 inches for local roads, 24 inches for collectors, and 30 inches for arterial roads.

- Culverts and pipes should be made of reinforced concrete (RCP) to ensure long-term durability and resistance to corrosion.

Open Channels and Ditches

- Roadside ditches should be graded to ensure proper drainage, with a minimum slope of 0.5% to prevent standing water and promote continuous flow.
- Install riprap or vegetation to stabilize ditch slopes and prevent erosion.
- Ditches should have a minimum depth of 2 feet to handle surface runoff without causing localized flooding.
- Drainage infrastructure should be placed behind sidewalks to allow efficient water management without obstructing pedestrian pathways. In cases where space is limited, utilities may be located beneath sidewalks, with future easements considered to accommodate any potential road widening.

Inlets and Catch Basins

Inlets and catch basins should be placed along roadways at low points, intersections, and every 300 feet in urban areas to capture surface runoff.

- Grates should be designed to minimize blockages from debris while allowing sufficient water flow. ADA-compliant grates are required in pedestrian areas.
- Adjust spacing based on the slope of the road and the drainage area. In steep areas, inlets should be more frequent to prevent runoff from overwhelming the system.

Subsurface Drainage

In areas with high groundwater tables or poor soil drainage, subsurface drains should be installed beneath the roadway to protect the road base from water infiltration and structural damage.

- Subsurface drains should be at least 18 inches below the road surface and should include filter fabric to prevent clogging from sediment.

EROSION AND SEDIMENTATION CONTROL

Erosion and sediment control measures are critical during construction and must be maintained post-construction to protect water quality and prevent damage to the surrounding environment.

Silt Fences

- Install silt fences along construction perimeters, near water bodies, and at storm drain inlets to prevent sediment from leaving the construction site.
- Ensure proper installation, with the fence anchored at least 6 inches below the ground surface to prevent bypassing.

Sediment Basins

- Sediment basins are required for larger developments or construction sites with disturbed areas of more than 1 acre.
- Basins must be designed to handle sediment from the 2-year, 24-hour storm event, providing sufficient storage capacity to allow sediment to settle before water is discharged.

Vegetative Buffers

- Recommended to use vegetative buffers along roadways, waterways, and drainage channels to stabilize soil, filter runoff, and provide erosion control.
- Vegetative buffers should consist of native grasses or plants and have a minimum width of 15 feet in rural areas and 10 feet in urban settings.

Maintenance and Inspection

Inspection Frequency

- Drainage systems, including culverts, ditches, and inlets, should be inspected at least twice a year and after major storm events.
- Pay special attention to inlets and catch basins for debris buildup, pipe joints for leaks, and ditches for erosion.

Drainage Maintenance

- Clear debris from drainage inlets, outlets, and channels to ensure proper water flow. Debris removal should be performed monthly in urban areas and after major storms.
- Vegetation in swales, bioswales, and ditches must be regularly trimmed and maintained to prevent overgrowth and ensure proper water flow.
- Erosion along drainage channels or embankments must be promptly repaired to prevent further damage and sedimentation.
- Areas with a high-water table may require subdrainage systems, particularly where road elevation necessitates additional drainage measures to ensure compliance.
- Geotechnical review shall be performed.

ENVIRONMENTAL COMPLIANCE

All drainage systems must comply with state and federal environmental regulations to protect water quality and natural habitats.

Water Quality Best Management Practices (BMPs)

- Drainage systems must incorporate Best Management Practices (BMPs) for water quality to reduce pollutants in stormwater runoff before it enters natural water bodies. BMPs Include:
    - **Oil/Grit Separators**: Used in urban areas and parking lots to capture oil and debris from stormwater before it is discharged into the drainage system.
    - **Filter Strips**: Installed alongside roadways and parking lots to allow stormwater to infiltrate into the soil, filtering out pollutants.

Wetland and Stream Buffer Zones

- Maintain buffer zones around wetlands, streams, and other water bodies to protect water quality and wildlife habitats.
- A minimum 50-foot buffer for streams and 100-foot buffer for wetlands, with restrictions on construction or earth-moving activities within these zones.

DECISION PROCESS FOR INTERSECTION CONTROL

This policy guide outlines the adoption of the Intersection Control Evaluation (ICE) framework developed by the Georgia Department of Transportation (GDOT) for evaluating and selecting intersection control treatments. The ICE process provides a structured, data-driven approach to ensure that intersection improvements are made efficiently and based on performance metrics that prioritize safety, traffic flow, and cost-effectiveness.

The Intersection Control Evaluation (ICE) process provides Effingham County with a structured, performance-based method for assessing intersection control options. By conducting Stage 1 early in the project development process to screen alternatives and Stage 2 for in-depth evaluation, the county can ensure that the most effective, safe, and cost-efficient intersection solutions are selected. This approach not only enhances traffic flow and safety but also ensures that the selected alternatives align with long-term planning goals and community needs.

ICE Stage 1: Initial Screening

Stage 1 is conducted at the beginning of the project development process. It serves as a screening mechanism to evaluate a broad set of intersection control options and determine which alternatives merit further consideration. This stage is focused on eliminating non-competitive options and identifying feasible solutions based on practical considerations.

Key Components of Stage 1:

- Conduct Stage 1 early in the planning process, prior to significant project investments. This stage should occur before detailed design work begins.
- The goal is to reduce the range of alternatives by identifying which options are impractical, costly, or do not meet the needs of the intersection based on a high-level evaluation.
- Data Collection: Collect preliminary data, including:
    - Traffic volumes (current and projected)
    - Crash data and safety concerns
    - Environmental constraints (topography, existing infrastructure, right-of-way limitations)
    - Operational issues (congestion, delay)
- Screening Criteria:
    - Assess whether the alternative can be implemented given physical, financial, and environmental constraints.
    - Develop rough estimates of construction and maintenance costs to rule out cost-prohibitive options.
    - Identify potential safety improvements, particularly for intersections with known crash issues.

Outcomes of Stage 1:

- **Elimination of Non-Competitive Options**: Screen out alternatives that fail to meet basic feasibility, safety, or cost criteria.
- **Shortlist of Viable Alternatives**: Identify which alternatives should advance to Stage 2 for further detailed evaluation. Common alternatives that might emerge from Stage 1 include:
    - Side Street Stop with Turn Lanes
    - R-Cuts (Restricted Crossing U-Turns)
    - Roundabouts
    - Traffic Signals

ICE Stage 2: Detailed Evaluation

Stage 2 involves a more detailed and in-depth analysis of the alternatives identified in Stage 1. This stage is designed to support the selection of a preferred alternative that will be advanced to the design phase. The alternatives considered in Stage 2 are expected to meet the operational, safety, and cost requirements identified in the initial screening.

Key Components of Stage 2:

Timing

Conduct Stage 2, once viable alternatives have been identified through Stage 1. This stage should occur as part of the preliminary engineering phase, before final design and construction begin.

Detailed Analysis

- **Traffic Flow**: Conduct detailed traffic modeling using tools such as SYNCHRO or VISSIM to evaluate operational efficiency (e.g., delay, queue lengths, throughput).
- **Safety Analysis:** Conduct predictive safety analysis using tools like the FHWA's Highway Safety Manual to estimate crash reduction potential for each alternative..
- **Environmental Impact**: Perform a more comprehensive environmental review, including assessments of stormwater management, wetlands, noise, and air quality impacts.

- **Cost Analysis**: Prepare detailed cost estimates, including both initial construction costs and long-term maintenance. Lifecycle costs should be considered to determine the total cost over time.
- **Right-of-Way and Land Use Impacts**: Assess how much additional right-of-way is required and the potential impact on adjacent properties, including relocations or disruptions to existing land uses.

Comparison and Ranking

- Rank alternatives based on performance across the criteria outlined above.
- Consider stakeholder input and public feedback gathered during the evaluation process.

Selection of Preferred Alternative

- The preferred alternative should meet the traffic, safety, environmental, and cost criteria, and reflect community preferences.
- Once selected, the preferred alternative is advanced to the detailed design phase and prepared for construction.

Key Intersection Control Alternatives

Side Street Stop with Turn Lanes

- Best for: Low-to-moderate traffic volumes on the main road and low volumes on the side street.
- Advantages: Cost-effective, simple to install, and improves side street access with minimal delays.

R-Cuts (Restricted Crossing U-Turns)

- Best for: Moderate-to-high traffic volumes and intersections with a history of left-turn-related crashes.
- Advantages: Reduces conflict points and improves safety by restricting left turns and forcing U-turns at designated points.

Roundabouts

- Best for: Intersections with moderate-to-high traffic volumes and frequent angle crashes.
- Advantages: Roundabouts improve safety by reducing speeds and conflict points. They also provide continuous traffic flow, reducing delays.
- Art guidelines: Any art installations placed within or around a roundabout should be designed to be detachable or removable, ensuring that maintenance or changes can be made easily. Designs should prioritize visibility, allowing for unobstructed sight lines through the roundabout for safety.
- Lighting Requirement: Adequate lighting is a requirement for all roundabouts and should be installed in compliance with the designated area. Lighting is always required in urban and local areas. Lumens are suggested for rural areas to limit the occurrence of light pollution. Solar lights are preferred for all installations where they are practical.
- GDOT Tree Recommendations: Tree plantings and other vegetation shall comply with GDOT guidelines, particularly in maintaining adequate sight distance. Tree placement should be carefully planned to avoid visual obstructions within the roundabout.
- Utilities: For all new roundabout constructions, utility lines should be positioned outside the roundabout footprint to enhance safety, ease of access, and reduce future maintenance disruptions. This approach minimizes interference and helps preserve the aesthetic quality of the area.

Effingham County prefers roundabouts over traffic signals, where feasible, to enhance traffic flow and safety. Roundabout radii and curb designs should accommodate large freight trucks and emergency vehicles.

Traffic Signals

- Best for: High traffic volumes or complex intersections with multiple lanes and pedestrian crossings.
- Advantages: Traffic signals provide clear control over traffic flow, especially at complex or high-traffic intersections.

Benefits of Adopting the ICE Process

- **Enhance decision-making**: Use data-driven, transparent evaluations to ensure the best solution is selected.
- **Improve safety**: Identify control alternatives that reduce crashes and improve intersection safety.
- **Optimize cost-effectiveness**: Select solutions based on both short- and long-term cost impacts, ensuring the most economical investment.
- **Increase transparency**: Ensure that decision-making is consistent and based on clear performance metrics.
- **Address community concerns**: Incorporate stakeholder feedback early in the process, reducing public opposition and fostering community support for projects.

Appendix B: Relevant Studies

Old Augusta Road Corridor Study

Old Augusta Road is a north-south roadway in southeastern Effingham County. The study area includes Old Augusta Road from SR 21 to Chimney Road, Chimney Road from Old Augusta Road to SR 21, and SR 21 between Old Augusta Road and Chimney Road.

There is a clear need for roadway improvements in order to accommodate the traffic generated by upcoming developments. This projected demand can be met with a four-lane section from SR 21 through the Chesterfield/Logistics access driveways and a two lane section for the remainder of the corridor. These improvements will result in a corridor that can meet the operational needs of the expected industrial growth along the facility while eliminating side street left turns along the corridor, providing a significant safety benefit.

Effingham Parkway and Forrest Haven Drive / Squirrel Run

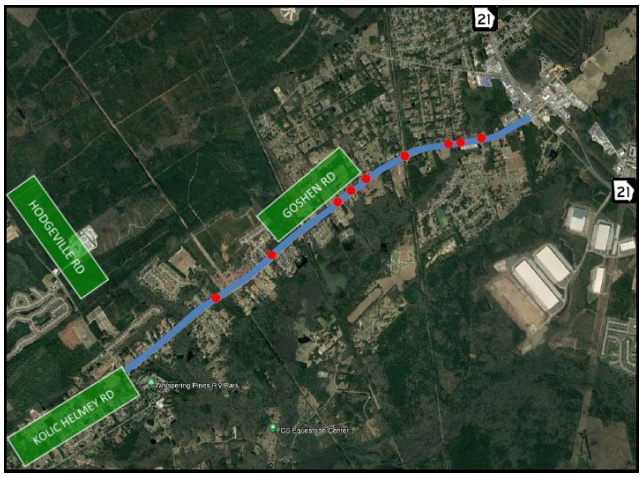
Upon its completion, Forest Haven Drive will create a link between Hodgeville Road and Effingham Parkway. GDOT project 0018023 includes substantial improvements planned for the intersection of SR 30 and Hodgeville Road. GDOT plans to construct a single-lane roundabout with eastbound through and westbound right turn bypass lanes at the intersection to relieve congestion and improve safety. Currently this project is anticipated to be let in late 2025 and will open to traffic sometime after that.

Figure 1 Study Area Map

If access from Forest Haven Drive is not permitted onto Effingham Parkway, no further improvements beyond the already planned roundabout at SR 30 and Hodgeville Road are anticipated to be necessary.

If access from Forest Haven Drive is permitted onto Effingham Parkway, minor improvements to the intersection of Hodgeville Road and Forest Haven Drive may be necessary to preserve good capacity. A right turn lane on Forest Haven Drive would provide reduced congestion, and a southbound left turn lane on Hodgeville Road would provide safety benefits for the increased number of turning vehicles. In addition, the pavement along Forest Haven Drive should be improved to support the increased traffic demands placed upon it.

GOSHEN ROAD TRAFFIC ENGINEERING STUDY



This study developed recommendations, including appropriate lane configuration along Goshen Road from Hodgeville Road to west of SR 21. The recommendations seek to improve operations, reduce delay, and reduce crash risk. The following recommendations were developed through the analysis performed in this study:

- Installation of W11-3 "Deer Crossing" signs due to the high number of vehicle crashes resulting from deer crossings
- Installation of a two-way left turn lane (TWLTL) along Goshen Road from west of SR 21 S to east of Hodgeville Road
- Installation of an eastbound right turn lane at the intersection of Goshen Road at Huger Street
- Installation of a westbound right turn lane at the intersection of Goshen Road at Crystal Drive
- Installation of a westbound right turn lane at the intersection of Goshen Road at Stephens Drive
- Installation of a westbound right turn lane at the intersection of Goshen Road at DR Horton- Longleaf Development driveway (to be included in site plan for DR Horton Longleaf Community)

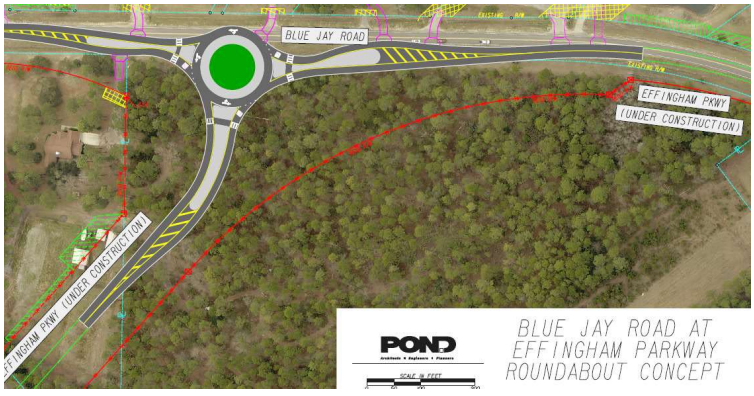
Due to existing physical constraints along Goshen Road and particular areas along the corridor that are less dense and require no direct access, consideration could be given to these areas to taper the TWLTL down to tie into the existing 2-lane section. These areas include the following:

- o Existing bridge culvert between Coldbrook Circle and Goshen Oaks Lane
- o Existing at-grade Norfolk Southern railroad crossing
- o Existing water trunk line as/if needed depending on lateral offset and depth of water line.

These improvements would help reduce the overall project widening footprint to avoid these impacts, reduce costs, reduce stakeholder coordination, and expedite project delivery and construction. All recommendations shown above shall be designed to tie into ongoing roadway improvement projects along Goshen Rd, including the installation of a single lane roundabout at the intersection of Goshen Rd at Hodgeville Rd and the construction of Effingham Parkway.

EFFINGHAM PARKWAY AND BLUE JAY ROAD TRAFFIC REPORT

The purpose of this report is to examine intersection configurations and controls at the future intersection of Blue Jay Road and Effingham Parkway based on forecasted traffic from the 2014 concept report and anticipated traffic growth from the Effingham County Transportation Master Plan (TMP) completed in 2021.



Based on the analyses presented in this report, a roundabout could potentially support future traffic levels while other configurations are likely to be unable to support future traffic demands during peak periods without substantial delay. As such, a single-lane roundabout is recommended at this location.

EFFINGHAM COUNTY COMPREHENSIVE PLAN

The Comprehensive Plan identified a need:

- Expansion of roadway system and growth and improvement of the local road network.

- Green infrastructure to provide resiliency in the face of natural disasters.
- Expand bicycle and pedestrian trails and paths.
- Investment in infrastructure that improves quality of life for residents (sidewalks, street lighting, parks, etc).

As a regional goal, the county should create a transportation plan to address access within the county and provide opportunity for access into the City of Savannah and the I-95 corridor. The plan's transportation recommended goals included:

- Alternatives to driving by pursuing walking, bicycling, and public transit.
- Extend bike and pedestrian networks wherever possible including greenways, trails, and bike and multi-use paths.
- Continue to design, support, and build roadways to ensure that new transportation facilities provide greater connectivity, better travel efficiency, and reduction of hazardous conditions.
- In Springfield, continue to expand multi-use trails, walkable streets, and connectivity to neighboring communities and commercial developments including the increased use of golf carts and other alternative modes of transportation.

The county and its cities have acknowledged personal vehicles are the predominant mode of transportation, they would like to emphasize safe roads and improve local road networks. Alternative modes of travel were encouraged throughout the comprehensive plan.

Appendix C: Implementation Plan

Detailed Prioritization Tables

Table C-1. Intersection Prioritization Scoring Table

			Assessment Scoring																														Prioritization Factors		Final Priority Score	
			Needs Screen						Resilience Screen			Disadvantaged Communities Screen																									
			System Performance	Safety and Security		State of Good Repair	Accessibility, Mobility, Connectivity					Transit Accessibility		Bike ped Accessibility		Connection to Critical Facilities				Title 4 EJ		Safety														
ID	Project Name	Jurisdiction	2050 Existing + Committed Daily Roaday Level of Service	Vehicular Crash Rates	Freight Crashes	Pavement Conditions	Provides Connection to Freight Generating Land Uses	Connecting Population Centers to Activity Centers	Floodplain	Sea Level Rise	Wetland	Bike Ped Improvement	Transit Connection	Bike Ped Improvement	Zero Vehicle Households	School Connection	Commercial Area Connection	High Density Res Connection	Park Connection	Bike Ped Improvement	EJ Census Tract	Median	Round-about	RCUT Intersection	Ped Crash	Total Needs Score	Total Resilience Score	Total Equity Score	Total Assessment Score	Local Priority (+/-)	Constructability (+/-)	Final Priority Score	Final Priority Tier
			Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score								
I-38	SR 21 at Fort Howard Road	City of Rincon	10	5	10	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	2.5	1	0	1	10	1	1	46	21	24	91	0		91	1
I-37	SR 21 at Ninth Street	City of Rincon	10	10	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	1.5	1.5	1	0	1	1	1	10	46	21	22	89	0	0	89	1
I-2	SR 119 at Little McCall Road	Effingham County	10	10	1	5	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	46	21	20	87	0	0	87	1
I-10	US 80 at Sand Hill Road	GDOT	10	5	10	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	46	21	20	87	0	0	87	1
I-46	SR 21 at Old Augusta Road	GDOT	10	10	10	1	10	10	1	10	10	1	0	1	0	0.5	1.5	2.5	0.5	1	0	1	1	1	1	51	21	12	84	0	0	84	1
I-43	SR 21 at McCall Road	GDOT	5	10	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	10	1	1	41	21	22	84	0	0	84	1
I-42	SR 21 at Westwood Drive/Silver Lake Drive	GDOT	10	5	5	10	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	1	1	1	50	21	13	84	0	0	84	1
I-33	SR 21 at SR 119	GDOT	10	10	10	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	1.5	1	0	1	1	1	1	51	21	12	84	0	0	84	1
I-56	McCall Road at Blue Jay Road/Blandford Road (East)	Effingham County	10	10	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	42	21	20	83	0	0	83	1
I-12	Hodgeville Rd at Cedar Ridge Dr/Gateway Parkway	Effingham County	1	10	1	5	10	10	10	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	37	30	18	85	0	0	85	1
I-52	SR 21 near Fort Howard Road	City of Rincon	1	5	10	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	2.5	1	0	1	1	10	1	37	21	24	82	0	0	82	1
I-15	SR 17 at Midland Road	Effingham County	10	5	1	5	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	41	21	20	82	0	0	82	1
I-11	US 80/SR 26 at Old River Road	GDOT	10	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	41	21	20	82	0	0	82	1
I-5	McCall Road at Low Ground Road	Effingham County	1	10	1	5	10	5	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	10	32	21	27	80	0	0	80	1
I-14	Sand Hill Road at Blue Jay Road/Ray Fetzer Drive	Effingham County	10	10	1	5	1	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	37	21	20	78	0	0	78	1
I-39	SR 21 at Prosperity Drive/Walmart Access	City of Rincon	1	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	2.5	1	0	1	1	1	10	32	21	24	77	0	0	77	2
I-54	McCall Road and New East-West Road/Effingham Power D/W	Effingham County	10	10	1	5	10	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	37	21	18	76	0	0	76	2
I-29	Hodgeville Road at Goshen Road	Effingham County	10	10	1	5	5	5	1	10	10	1	0	1	0	0.5	1.5	0.5	0.5	1	0	1	10	1	1	36	21	19	76	0	0	76	2
I-24	Blue Jay Road at Midland Road	Effingham County	10	10	1	5	1	10	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	37	21	18	76	0	0	76	2
I-70	Old Augusta Road and Chimney Road	Effingham County	1	5	1	5	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	10	1	1	32	21	22	75	0	0	75	2
I-45	SR 21 NB at Goshen Road	GDOT	10	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	1	1	1	41	21	13	75	0	0	75	2
I-28	Blue Jay Road at Hodgeville Road	Effingham County	10	10	5	5	5	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	36	21	18	75	0	0	75	2
I-71	SR 21 and Chimney Road	GDOT	1	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	1.5	0.5	1	0	1	1	10	1	32	21	21	74	0	0	74	2
I-62	LEO and the Sanctuary	Effingham County	1	5	1	5	10	10	1	10	10	1	0	1	0	0.5	1.5	2.5	0.5	1	0	1	1	10	1	32	21	21	74	0	0	74	2
I-30	Hodgeville at Kolic Helmey Road	Effingham County	10	5	1	5	1	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	10	1	1	32	21	20	73	0	0	73	2
I-41	SR 21 at Towne Park Drive	City of Rincon	5	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	2.5	1	0	1	1	1	1	36	21	15	72	0	0	72	2
I-22	Midland Road at Courthouse Road	Effingham County	10	10	5	5	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	32	21	18	71	0	0	71	2
I-27	SR 30 at Kolic Helmey Road	Effingham County/GDOT	10	10	1	1	1	5	1	10	10	1	0	1	0	0.5	1.5	0.5	1.5	1	0	1	10	1	1	28	21	20	69	0	0	69	2
I-1	SR 17 at SR 119/Springfield Avenue	GDOT	10	5	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	37	21	11	69	0	0	69	2
I-36	SR 21 at SR 275/Ebenezer Road	GDOT	5	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	36	21	11	68	0	0	68	2
I-64	Old Augusta Road and Exeter/Trailer Yard	Effingham County	1	5	1	5	10	5	1	10	10	1	0	1	0	0.5	0.5	1.5	0.5	1	0	1	10	1	1	27	21	19	67	0	0	67	2
I-44	SR 21 SB at Goshen Road	GDOT	5	5	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	1	1	1	1	1	32	21	14	67	0	0	67	2
I-66	Old Augusta Road and Estes	Effingham County	1	5	1	5	10	5	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	27	21	18	66	0	0	66	2
I-48	SR 21 at 4th Street	GDOT	10	1	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	1.5	1	0	1	1	1	1	33	21	12	66	0	0	66	2
I-61	Old Augusta Road and South U-Turn Crossover	Effingham County	1	5	1	5	10	10	1	10	1	1	0	1	0	0.5	1.5	2.5	0.5	1	0	10	1	1	1	32	12	21	65	0	0	65	2
I-9	US 80 at SR 30	GDOT	1	5	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	32	21	11	64	0	0	64	2
I-25	SR 30/Noel C. Conaway Road at Midland Road	Effingham County/GDOT	10	5	1	1	1	5	1	10	10	1	0	1	0	0.5	1.5	0.5	0.5	1	0	1	10	1	1	23	21	19	63	0	0	63	2
I-72	Goshen Road at Huger Street	Effingham County	1	5	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	1	1	1	28	21	13	62	0	0	62	2
I-67	Old Augusta Road and Chesterfield/Becknell	Effingham County	1	5	1	5	10	10	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	32	21	9	62	0	0	62	2
I-4	McCall Road at Little McCall Road	Effingham County	1	5	1	5	1	10	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	23	21	18	62	0	0	62	2
I-31	Rincon Stillwell Road at Fort Howard Road	Effingham County	10	1	1	5	5	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	23	21	18	62	0	0	62	2
I-26	SR 30 at Hodgeville Road	GDOT	10	1	1	1	1	5	1	10	10	1	0	1	0	0.5	1.5	0.5	2.5	1	0	1	10	1	1	19	21	21	61	0	0	61	2
I-16	SR 17 at Courthouse Road	GDOT	5	10	1	1	1	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	28	21	11	60	0	0	60	2
I-63	Old Augusta Road and Northgate	Effingham County	1	5	1	5	10	5	1	10	10	1	0	1	0	0.5	0.5	2.5	0.5	1	0	1	1	1	1	27	21	11	59	0	0	59	3
I-20	SR 17 at Jabez Jones Road	GDOT	10	1	5	1	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	19	21	18	58	0	0	58	3
I-69	Old Augusta Road and Cowan North	Effingham County	1	5	1	5	10	5	1	10	1	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	27	12	18	57	0	0	57	3
I-60	Old Augusta Road and Parkers Driveway	Effingham County	1	5	1	5	10	10	1	10	1	1	0	1	0	0.5	1.5	2.5	0.5	1	0	1	1	1	1	32	12	12	56	0	0	56	3
I-57	SR 21 at New East-West Road	City of Rincon	1	1	1	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	24	21	11	56	0	0	56	3
I-65	Old Augusta Road and Cowan South	Effingham County	1	5	1	5	10	1	1	10	10	1	0	1	0	0.5	0.5	1.5	0.5	1	0	1	1	1	1	23	21	10	54	0	0	54	3
I-18	SR 17 at SR 30	Effingham County	10	10	1	1	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	24	21	9	54	0	0	54	3
I-13	Midland Rd at Low Ground Rd	Effingham County	1	5	1	5	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	10	1	1	14	21	18	53	0	0	53	3
I-68	Old Augusta Road and Cowan Center	GDOT	1	5	1	5	10	10	1	10	1	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	32	12	9	53	0	0	53	3
I-19	SR 17 at Marlow Road	Effingham County	10	5	1	5	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	23	21	9	53	0	0	53	3
I-74	Goshen Road and Stephens Drive	GDOT	1	5	1	1	5	5	1	10	10	1	0	1	0	0.5	1.5	2.5	0.5	1	0	1	1	1	1	18	21	12	51	0	0	51	3
I-73	Goshen Road and Crystal Drive	Effingham County	1	5	1	1	5	5	1	10	10	1	0	1	0	0.5	1.5	2.5	0.5	1	0	1	1	1	1	18	21	12	51	0	0	51	3
I-8	Courthouse Road at Little McCall Road	Effingham County	1	10	1	5	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	19	21	9	49	0	0	49	3
I-53	Springfield Elementary School Driveway	City of Springfield	1	1	1	1	5	5	1	10	10	1	0	1	0	2.5	1.5	0.5	2.5	1	0	1	1	1	1	14	21	14	49	0	0	49	3
I-49	Stillwell Road at Long Bridge Road	Effingham County	1	5	1	5	1	5	1	10	10	1	0	1	0	0.5	1.5	0.5	0.5	1	0	1	1	1	1	18	21	10	49	0	0	49	3
I-75	Goshen Road and DR-Horton-Longleaf Driveway	Effingham County	1	5	1	1	1	5	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	14	21	9	44	0	0	44	3
I-58	New North-South Road and GIRP Road	City of Rincon	1	1	1	1	1	1	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	6	21	9	36	0	0	36	3

Table C-2. Roadway and Freight Prioritization Scoring Table

			Needs Screen								Resilience Screen			Assesssment Scoring																				Prioritization Factors		Final Priority Score	
			System Performance		Safety and Security		State of Good Repair		Accessibility, Mobility, Connectivity					Transit Accessibility		Bike ped Accessibility		Connection to Critical Facilities				Title 4/EJ		Safety															
Project ID	Project Name	Project Type	2050 Existing + Committed Daily Roaday Level of Service	Annual Average Daily Truck Traffic (AADTT)	Vehicular Crash Rates	Freight Crashes	Pavement Conditions	Bridge Sufficiency	Provides Connection to Freight Generating Land Uses	Connecting Population Centers to Activity Centers	Floodplain	Sea Level Rise	Wetland	Bike Ped Improvement	Transit Connection	Bike Ped Improvement	Zero Vehicle Households	School Connection	Commercial Area Connection	High Density Res Connection	Park Connection	Bike Ped Improvement	EJ Census Tract	Median	Round-about	RCUT Intersection	Ped Crash	Total Needs Score	Total Resilience Score	Total Equity Score	Total Assessment Score	Local Priority (+/-)	Constructability (+/-)	Final Priority Score	Final Priority Tier
			Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score								
N-18	SR 21 Widening	Widening	10	10	10	10	5	10	10	10	10	10	10	1	0	1	0	2.5	2.5	2.5	2.5	1	0	1	1	1	10	75	30	26	131	0	0	131	1
N-26	US 80 Widening from SR 30 to US 80	Widening	10	10	5	10	0	1	10	10	10	10	10	1	0	1	0	0.5	2.5	2.5	2.5	1	0	10	1	1	1	56	30	24	110	0	0	110	1
N-2	Blue Jay Road from McCall Rd to Sandhill Rd	Widening and Freight Upgrades	10	1	10	1	5	1	10	10	10	10	10	0	1	0	10	0.5	2.5	0.5	0.5	0	1	1	1	1	1	48	30	20	98	0	0	98	1
N-13	Sand Hill Road Operational Improvements	Freight Upgrades	10	10	10	1	1	1	10	10	10	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	53	30	11	94	0	0	94	1
N-3	Goshen Road Two Way Left Turn Lane	Roadway Improvements	10	1	5	1	1	1	10	10	10	10	10	1	0	1	0	0.5	2.5	2.5	0.5	1	0	1	1	1	10	39	30	22	91	0	0	91	1
N-1	Blue Jay Road from Effingham Parkway to McCall Rd	Widening and Freight Upgrades	10	1	10	1	5	1	10	10	1	10	10	0	1	0	10	0.5	2.5	0.5	0.5	0	1	1	1	1	1	48	21	20	89	0	0	89	1
N-8	McCall Road Freight Upgrades	Roadway Improvements and Freight Upgrades	10	1	10	1	5	1	10	10	1	10	1	1	0	1	0	0.5	2.5	1.5	2.5	1	0	1	1	1	10	48	12	23	83	0	0	83	1
N-16	McCall Road (south) Realignment and Freight Improvements	Realign Roadway and Freight Upgrades	1	1	10	1	5	1	10	10	10	10	1	1	0	1	0	2.5	2.5	0.5	0.5	1	0	1	1	1	1	39	21	13	73	5	5	83	1
N-21	Old Augusta Road Widening	Widening	10	1	5	1	5	1	10	10	1	10	1	1	0	1	0	0.5	2.5	2.5	0.5	1	0	10	1	1	1	43	12	22	77	5	0	82	1
N-6	Old Augusta Road Freight Accommodations	Freight Upgrades	10	10	5	1	5	1	10	10	1	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	52	21	13	86	-5	0	81	2
N-32	Clyo-Kildare Road Freight Accommodation Improvements	Freight Upgrades	1	1	5	1	5	1	10	10	10	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	34	30	11	75	0	0	75	2
N-25	Jabez Jones Road Extension from SR 30 to US 80	New Roadway*	10	1	1	1	5	1	10	10	10	10	1	1	0	1	0	1.5	2.5	1.5	0.5	1	0	1	1	1	1	39	21	13	73	0	0	73	2
N-4	Low Ground Road Safety Improvements	Roadway Improvements	1	1	1	1	5	1	10	10	10	10	10	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	30	30	11	71	0	0	71	2
N-7	Old Augusta Road Widening Phase II	Widening	1	1	5	1	5	1	10	10	1	10	1	1	0	1	0	0.5	2.5	2.5	0.5	1	0	10	1	1	1	34	12	22	68	0	0	68	2
N-5	OmniTRAX East-West Connector	New Roadway*	10	1	1	1	1	1	10	10	10	10	1	1	0	1	0	2.5	0.5	0.5	0.5	1	0	1	1	1	1	35	21	11	67	0	0	67	2
N-28	Old River Road Widening from North of I-16 to US 80	Further Study	1	1	5	1	5	1	10	10	10	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	34	21	11	66	0	0	66	2
N-10	Long Bridge Road Freight Upgrades	Freight Upgrades	1	1	1	1	5	1	10	10	1	10	10	1	0	1	0	1.5	2.5	0.5	0.5	1	0	1	1	1	1	30	21	12	63	0	0	63	2
N-20	Effingham Parkway Widening	Widening	5	1	1	1	1	1	10	10	10	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	30	21	11	62	0	0	62	2
N-9	Rahn Station Road Freight Upgrades	New Roadway*	5	1	1	1	5	1	10	10	1	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	34	12	11	57	5	0	62	2
N-30	Egypt Ardmore Road Paving	Roadway Improvements	1	1	1	1	5	1	10	10	1	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	30	12	11	53	0	5	58	2
N-19	Blue Jay Road Extension from Sandy Hill Road to US 280	New Roadway*	10	1	1	1	5	1	1	10	10	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	30	21	11	62	0	-5	57	3
N-11	SR 21 - SR 119 Connector	New Roadway*	1	1	1	1	1	1	10	10	10	10	1	1	0	1	0	0.5	2.5	0.5	1.5	1	0	1	1	1	1	26	21	12	59	-5	0	54	3
N-12	SR 119 Relocation from SR119 to SR 21	New Roadway*	1	1	1	1	1	1	10	10	1	10	1	1	0	1	0	2.5	2.5	1.5	2.5	1	0	1	1	1	1	26	12	16	54	0	0	54	3
N-22	Southeastern Roadway Network (SERN) East-West Roadway	New Roadway*	5	1	1	1	1	1	10	10	1	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	30	12	11	53	0	0	53	3
N-33	Stillwell Clyo Road Operational Improvements from Long Bridge Road to Fair Street	Roadway Improvements	1	1	5	1	5	1	1	5	1	10	10	1	0	1	0	0.5	1.5	0.5	0.5	1	0	1	1	1	1	20	21	10	51	0	0	51	3
N-34	Fair Street Freight Accommodation Improvements	Freight Updrades	1	1	1	1	5	1	1	5	1	10	10	1	0	1	0	0.5	0.5	0.5	0.5	1	0	1	1	1	1	16	21	9	46	0	0	46	3
N-15	Low Ground Road Extension West	New Roadway*	1	1	1	1	1	1	1	5	10	10	1	1	0	1	0	0.5	1.5	0.5	0.5	1	0	1	1	1	1	12	21	10	43	0	0	43	3
N-23	Southeastern Roadway Network (SERN) North-South Roadway	New Roadway*	1	1	1	1	1	1	10	1	1	10	1	1	0	1	0	0.5	2.5	0.5	0.5	1	0	1	1	1	1	17	12	11	40	0	0	40	3

*** New roadway projects provide connectivity that is not present in the current network and can provide additional benefits beyond those indicated in the prioritizaiton scoring**

Table C-3. Active Transportation Prioritization Scoring Table

			Assessment Scoring																		Prioritization Factors		Final Priority Score	
			Needs Screen					Resilience Screen			Equity Screen													
			System Performance		Safety and Security	Accessibility, Mobility, Connectivity					Accessibility	Connection to Critical Facilities				Title 4 EJ								
Project ID	Project Name	Project Class	2050 Existing + Committed Daily Roaday Level of Service	Annual Average Daily Traffic (AADT)	Bike/Ped Crash Rates	Active Transportation Demand	Connecting Population Centers to Activity Centers	Floodplain	Sea Level Rise	Wetland	Zero Vehicle Households	School Connection	Commercial Area Connection	High Density Res Connection	Park Connection	EJ Census Tract	Total Needs Score	Total Resilience Score	Total Equity Score	Total Assessment Score	Local Priority (+/-)	Constructability (+/-)	Final Priority Score	Final Priority Tier
			Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score								
A-14	Goshen Road	Bicycle Lanes, Sidewalks	10	10	5	10	10	10	10	10	10	0.5	2.5	2.5	0.5	10	45	30	26	101	0	0	101	1
A-6	SR 21	Bicycle Lanes, Sidewalks	10	10	10	10	10	1	10	10	10	0.5	2.5	2.5	2.5	10	50	21	28	99	0	0	99	1
A-23	Blue Jay Road	Multi-Use Trail	10	10	1	10	10	10	10	10	10	0.5	2.5	2.5	2.5	10	41	30	28	99	0	0	99	1
A-10	SR 30/Noel C Conaway Road	Bicycle Lanes, Sidewalks	10	10	1	10	10	10	10	10	10	2.5	2.5	2.5	2.5	5	41	30	25	96	0	0	96	1
A-8	US 80	Seperated Bike Lanes, Sidewalks	10	10	1	10	10	10	10	10	10	0.5	2.5	2.5	2.5	5	41	30	23	94	0	0	94	1
A-21	Sand Hill Road	Bicycle Lanes, Sidewalks	10	5	5	10	10	10	10	10	10	2.5	2.5	0.5	2.5	5	40	30	23	93	0	0	93	1
A-7	Fort Howard Road	Bicycle Lanes	10	5	10	10	10	1	10	10	10	2.5	2.5	2.5	2.5	5	45	21	25	91	0	0	91	2
A-20	McCall Road	Wide Shoulder, Sidewalks	10	5	5	10	10	10	10	1	10	2.5	2.5	2.5	2.5	10	40	21	30	91	0	0	91	2
A-5	SR 119 Multi-Use Path	Multi-Use Trail	10	10	5	10	10	10	10	1	10	2.5	2.5	1.5	2.5	5	45	21	24	90	0	0	90	2
A-13	4th Street/Rincon-Stillwell Road	Bicycle Lanes, Sidewalks	10	5	5	10	10	10	10	10	5	0.5	2.5	0.5	1.5	10	40	30	20	90	0	0	90	2
A-18	Old Augusta Road	Wide Shoulder	10	10	1	10	10	1	10	10	10	1.5	2.5	2.5	0.5	10	41	21	27	89	0	0	89	2
A-2	Hi-Lo Trail	Multi-Use Trail	10	5	5	10	10	10	10	1	10	2.5	2.5	2.5	2.5	5	40	21	25	86	0	0	86	2
A-17	SR 119 Multi-Use Path Extension	Multi-Use Trail	10	5	1	5	10	10	10	10	10	0.5	2.5	0.5	0.5	5	31	30	19	80	0	0	80	2
A-16	Courthouse Road	Multi-Use Trail	10	1	1	10	10	1	10	10	10	0.5	2.5	1.5	2.5	5	32	21	22	75	0	0	75	2
A-25	Stillwell Road/Longbridge Road	Bicycle Lanes, Sidewalks	1	5	1	10	10	10	10	10	1	1.5	2.5	2.5	0.5	10	27	30	18	75	0	0	75	2
A-9	Hodgeville Road	Wide Shoulder, Sidewalks	10	10	1	10	10	10	10	1	5	0.5	2.5	0.5	1.5	1	41	21	11	73	0	0	73	2
A-15	Kolic Helmey Road	Bicycle Lanes, Sidewalks	10	5	1	10	10	1	10	10	5	2.5	2.5	0.5	0.5	5	36	21	16	73	0	0	73	2
A-3	Rincon-Springfield Bicycle/Pedestrian Connection	Multi-Use Trail	10	1	1	1	10	10	10	1	10	0.5	2.5	2.5	2.5	10	23	21	28	72	0	0	72	2
A-12	N. Carolina Ave	Wide Shoulder, Sidewalks	1	1	1	10	10	10	10	1	10	0.5	2.5	2.5	2.5	10	23	21	28	72	0	0	72	2
A-19	SR 275	Bicycle Lanes, Sidewalks	5	5	1	10	10	1	10	10	1	2.5	2.5	2.5	0.5	10	31	21	19	71	0	0	71	3
A-1	RRFB and Crosswalk at SR 21 BU/Laurel Street	Pedestrian Crossing	1	10	5	5	10	1	10	10	1	0.5	2.5	2.5	1.5	5	31	21	13	65	0	0	65	3
A-24	Chimney Road	Bicycle Lanes, Sidewalks	1	5	1	10	10	1	10	10	10	0.5	2.5	2.5	0.5	1	27	21	17	65	0	0	65	3
A-4	Low Ground Road Bike/Ped Connection	Multi-Use Trail	1	1	5	1	10	10	10	1	10	0.5	2.5	0.5	0.5	10	18	21	24	63	0	0	63	3
A-22	Rahn Station Road	Wide Shoulder	5	5	1	5	10	1	10	1	5	0.5	2.5	0.5	0.5	10	26	12	19	57	0	0	57	3
A-11	Meldrim-Chatham Trail	Multi-Use Trail	1	1	1	1	5	10	10	1	10	0.5	1.5	0.5	2.5	1	9	21	16	46	0	0	46	3

Detailed Project Costing Tables

Table C-4. Intersection Project Costing Table (1 of 4)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
I-1	Roundabout Bypass Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
														$ 304,000.00	$ 45,600.00		$ 349,600.00
I-2	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-4	Roundabout Bypass Lane	4	$ 200,000.00	$ 800,000.00	$ 80,000.00		$ 160,000.00		$ 120,000.00		$ 56,000.00		$ 1,216,000.00				
	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
	Repaving	0.1	$ 250,000.00	$ 25,000.00	$ 2,500.00		$ 5,000.00		$ 3,750.00		$ 1,750.00		$ 38,000.00				
														$ 5,054,000.00	$ 758,100.00		$ 5,812,100.00
I-5	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-6	Roundabout Bypass Lane	4	$ 200,000.00	$ 800,000.00	$ 80,000.00		$ 160,000.00		$ 120,000.00		$ 56,000.00		$ 1,216,000.00				
	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 6,536,000.00	$ 980,400.00		$ 7,516,400.00
I-8	Misc Striping Improvements	1	$ 10,000.00	$ 10,000.00	$ 1,000.00		$ 2,000.00		$ 1,500.00		$ 700.00		$ 15,200.00				
	Shoulder widening	0.02178	$ 125,000.00	$ 2,722.54	$ 272.25		$ 544.51		$ 408.38		$ 190.58		$ 4,138.26				
														$ 19,338.26	$ 2,900.74		$ 22,239.00
I-9	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
														$ 304,000.00	$ 45,600.00		$ 349,600.00
I-10	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 5,320,000.00	$ 798,000.00		$ 6,118,000.00
I-11	New Roadway Alignment (1 lane in each direction)	0.2	$ 2,500,000.00	$ 500,000.00	$ 50,000.00		$ 100,000.00		$ 75,000.00		$ 35,000.00		$ 760,000.00				
	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 6,080,000.00	$ 912,000.00		$ 6,992,000.00
I-12	Single Lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-13	Single Lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-14	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-15	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-16	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
														$ 563,920.00	$ 84,588.00		$ 648,508.00
I-18	Left Turn Lane	3	$ 200,000.00	$ 600,000.00	$ 60,000.00		$ 120,000.00		$ 90,000.00		$ 42,000.00		$ 912,000.00				
														$ 912,000.00	$ 136,800.00		$ 1,048,800.00
I-19	Left Turn Lane	2	$ 200,000.00	$ 400,000.00	$ 40,000.00		$ 80,000.00		$ 60,000.00		$ 28,000.00		$ 608,000.00				
														$ 608,000.00	$ 91,200.00		$ 699,200.00
I-20	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
	Roundabout Bypass Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
														$ 4,104,000.00	$ 615,600.00		$ 4,719,600.00
I-22	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-24	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00

Table C-5. Intersection Project Costing Table (2 of 4)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
I-25	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
	Roundabout Bypass Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
														$ 4,104,000.00	$ 615,600.00		**$ 4,719,600.00**
I-26	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
	Roundabout Bypass Lane	2	$ 200,000.00	$ 400,000.00	$ 40,000.00		$ 80,000.00		$ 60,000.00		$ 28,000.00		$ 608,000.00				
														$ 4,408,000.00	$ 661,200.00		**$ 5,069,200.00**
I-27	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 5,320,000.00	$ 798,000.00		**$ 6,118,000.00**
I-28	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-29	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-30	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-31	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-33	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 334,400.00	$ 50,160.00		**$ 384,560.00**
I-36	Misc Striping Improvements	1	$ 10,000.00	$ 10,000.00	$ 1,000.00		$ 2,000.00		$ 1,500.00		$ 700.00		$ 15,200.00				
	Shoulder widening	0.02178	$ 125,000.00	$ 2,722.54	$ 272.25		$ 544.51		$ 408.38		$ 190.58		$ 4,138.26				
														$ 19,338.26	$ 2,900.74		**$ 22,239.00**
I-37	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 290,320.00	$ 43,548.00		**$ 333,868.00**
I-38	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Repaving	0.13	$ 250,000.00	$ 32,500.00	$ 3,250.00		$ 6,500.00		$ 4,875.00		$ 2,275.00		$ 49,400.00				
	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 643,720.00	$ 96,558.00		**$ 740,278.00**
I-39	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 290,320.00	$ 43,548.00		**$ 333,868.00**
I-41	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 290,320.00	$ 43,548.00		**$ 333,868.00**
I-42	Right Turn Lane	2	$ 171,000.00	$ 342,000.00	$ 34,200.00		$ 68,400.00		$ 51,300.00		$ 23,940.00		$ 519,840.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 550,240.00	$ 82,536.00		**$ 632,776.00**
I-43	Left Turn Lane	2	$ 200,000.00	$ 400,000.00	$ 40,000.00		$ 80,000.00		$ 60,000.00		$ 28,000.00		$ 608,000.00				
	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 898,320.00	$ 134,748.00		**$ 1,033,068.00**
I-44	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
														$ 304,000.00	$ 45,600.00		**$ 349,600.00**

Table C-6. Intersection Project Costing Table (3 of 4)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
I-45	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Roadway Widening (1 lane in each direction) - quanity halved for single direction widening	0.25	$ 3,000,000.00	$ 750,000.00	$ 75,000.00		$ 150,000.00		$ 112,500.00		$ 52,500.00		$ 1,140,000.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 1,734,320.00	$ 260,148.00		$ 1,994,468.00
I-46	Left Turn Lane	2	$ 200,000.00	$ 400,000.00	$ 40,000.00		$ 80,000.00		$ 60,000.00		$ 28,000.00		$ 608,000.00				
	Roadway Widening (1 lane in each direction)	0.3	$ 3,000,000.00	$ 900,000.00	$ 90,000.00		$ 180,000.00		$ 135,000.00		$ 63,000.00		$ 1,368,000.00				
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00		$ 4,000.00		$ 3,000.00		$ 1,400.00		$ 30,400.00				
														$ 2,006,400.00	$ 300,960.00		$ 2,307,360.00
I-48	Left Turn Lane	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Traffic Signal	1	$ 350,000.00	$ 350,000.00	$ 35,000.00		$ 70,000.00		$ 52,500.00		$ 24,500.00		$ 532,000.00				
														$ 836,000.00	$ 125,400.00		$ 961,400.00
I-49	New Roadway Alignment (1 lane in each direction)	0.28	$ 2,500,000.00	$ 700,000.00	$ 70,000.00		$ 140,000.00		$ 105,000.00		$ 49,000.00		$ 1,064,000.00				
														$ 1,064,000.00	$ 159,600.00		$ 1,223,600.00
I-52	Add RCUT on multilane Road	1	$ 500,000.00	$ 500,000.00	$ 50,000.00		$ 100,000.00		$ 75,000.00		$ 35,000.00		$ 760,000.00				
	RI/Ro Driveway Island	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
														$ 836,000.00	$ 125,400.00		$ 961,400.00
I-53	Left Turn Lane	3	$ 200,000.00	$ 600,000.00	$ 60,000.00		$ 120,000.00		$ 90,000.00		$ 42,000.00		$ 912,000.00				
	Right Turn Lane	3	$ 171,000.00	$ 513,000.00	$ 51,300.00		$ 102,600.00		$ 76,950.00		$ 35,910.00		$ 779,760.00				
														$ 1,691,760.00	$ 253,764.00		$ 1,945,524.00
I-54	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-56	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		$ 4,370,000.00
I-57	Traffic Signal	1	$ 350,000.00	$ 350,000.00	$ 35,000.00		$ 70,000.00		$ 52,500.00		$ 24,500.00		$ 532,000.00				
														$ 532,000.00	$ 79,800.00		$ 611,800.00
I-58	Minor street stop control	1	$ 5,000.00	$ 5,000.00	$ 500.00		$ 1,000.00		$ 750.00		$ 350.00		$ 7,600.00				
														$ 7,600.00	$ 1,140.00		$ 8,740.00
I-60	RI/Ro Driveway Island	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
	Roadway Widening (1 lane in each direction)	0.02	$ 3,000,000.00	$ 60,000.00	$ 6,000.00		$ 12,000.00		$ 9,000.00		$ 4,200.00		$ 91,200.00				
														$ 167,200.00	$ 25,080.00		$ 192,280.00
I-61	**Left Turn Lane**	1	$ 200,000.00	$ 200,000.00	$ 20,000.00		$ 40,000.00		$ 30,000.00		$ 14,000.00		$ 304,000.00				
	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
	Median Break	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
														$ 639,920.00	$ 95,988.00		$ 735,908.00
I-62	Add RCUT on multilane Road	1	$ 500,000.00	$ 500,000.00	$ 50,000.00		$ 100,000.00		$ 75,000.00		$ 35,000.00		$ 760,000.00				
														$ 760,000.00	$ 114,000.00		$ 874,000.00
I-63	Roadway Widening (1 lane in each direction)	0.02	$ 3,000,000.00	$ 60,000.00	$ 6,000.00		$ 12,000.00		$ 9,000.00		$ 4,200.00		$ 91,200.00				
	RI/Ro Driveway Island	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
														$ 167,200.00	$ 25,080.00		$ 192,280.00
I-64	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 5,320,000.00	$ 798,000.00		$ 6,118,000.00
I-65	Roadway Widening (1 lane in each direction)	0.02	$ 3,000,000.00	$ 60,000.00	$ 6,000.00		$ 12,000.00		$ 9,000.00		$ 4,200.00		$ 91,200.00				
	RI/Ro Driveway Island	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
														$ 167,200.00	$ 25,080.00		$ 192,280.00
I-66	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 5,320,000.00	$ 798,000.00		$ 6,118,000.00

Table C-7. Intersection Project Costing Table (4 of 4)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
I-67	Multilane Roundabout	1	$ 3,500,000.00	$ 3,500,000.00	$ 350,000.00		$ 700,000.00		$ 525,000.00		$ 245,000.00		$ 5,320,000.00				
														$ 5,320,000.00	$ 798,000.00		**$ 6,118,000.00**
I-68	Roadway Widening (1 lane in each direction)	0.02	$ 3,000,000.00	$ 60,000.00	$ 6,000.00		$ 12,000.00		$ 9,000.00		$ 4,200.00		$ 91,200.00				
	Ri/Ro Driveway Island	1	$ 50,000.00	$ 50,000.00	$ 5,000.00		$ 10,000.00		$ 7,500.00		$ 3,500.00		$ 76,000.00				
														$ 167,200.00	$ 25,080.00		**$ 192,280.00**
I-69	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-70	Single lane Roundabout	1	$ 2,500,000.00	$ 2,500,000.00	$ 250,000.00		$ 500,000.00		$ 375,000.00		$ 175,000.00		$ 3,800,000.00				
														$ 3,800,000.00	$ 570,000.00		**$ 4,370,000.00**
I-71	Add RCUT on multilane Road	1	$ 500,000.00	$ 500,000.00	$ 50,000.00		$ 100,000.00		$ 75,000.00		$ 35,000.00		$ 760,000.00				
														$ 760,000.00	$ 114,000.00		**$ 874,000.00**
I-72	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
														$ 259,920.00	$ 38,988.00		**$ 298,908.00**
I-73	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
														$ 259,920.00	$ 38,988.00		**$ 298,908.00**
I-74	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
														$ 259,920.00	$ 38,988.00		**$ 298,908.00**
I-75	Right Turn Lane	1	$ 171,000.00	$ 171,000.00	$ 17,100.00		$ 34,200.00		$ 25,650.00		$ 11,970.00		$ 259,920.00				
														$ 259,920.00	$ 38,988.00		**$ 298,908.00**

Table C-8. Roadway and Freight Project Costing Table

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE 10%	ROW 20%	UTL 15%	CMT 7%	Construction Unit Cost	Total Construction Cost	Cont. 15%	Total Project Cost
N-1	RURAL Freight Upgrades	1.55	$ 315,000.00	$ 488,250.00	$ 48,825.00	$ 97,650.00	$ 73,237.50	$ 34,177.50	$ 742,140.00			
	Roadway Widening (1 lane in each direction with median)	1.55	$ 5,000,000.00	$ 7,750,000.00	$ 775,000.00	$ 1,550,000.00	$ 1,162,500.00	$ 542,500.00	$ 11,780,000.00			
	Sidewalk	1.55	$ 430,000.00	$ 666,500.00	$ 66,650.00	$ 133,300.00	$ 99,975.00	$ 46,655.00	$ 1,013,080.00			
	Multiuse path	1.55	$ 430,000.00	$ 666,500.00	$ 66,650.00	$ 133,300.00	$ 99,975.00	$ 46,655.00	$ 1,013,080.00			
										$ 14,548,300.00	$ 2,182,245.00	$ 16,730,545.00
N-2	Urban Freight Upgrades	9.35	$ 625,000.00	$ 5,843,750.00	$ 584,375.00	$ 1,168,750.00	$ 876,562.50	$ 409,062.50	$ 8,882,500.00			
	Sidewalk	9.35	$ 430,000.00	$ 4,020,500.00	$ 402,050.00	$ 804,100.00	$ 603,075.00	$ 281,435.00	$ 6,111,160.00			
	Multiuse path	9.35	$ 430,000.00	$ 4,020,500.00	$ 402,050.00	$ 804,100.00	$ 603,075.00	$ 281,435.00	$ 6,111,160.00			
										$ 21,104,820.00	$ 3,165,723.00	$ 24,270,543.00
N-3	Two way left turn lane installation	3.24	$ 2,800,000.00	$ 9,072,000.00	$ 907,200.00	$ 1,814,400.00	$ 1,360,800.00	$ 635,040.00	$ 13,789,440.00			
	Railroad Construction	1	$ 500,000.00	$ 500,000.00	$ 50,000.00	$ 100,000.00	$ 75,000.00	$ 35,000.00	$ 760,000.00			
	Right Turn Lanes	4	$ 171,000.00	$ 684,000.00	$ 68,400.00	$ 136,800.00	$ 102,600.00	$ 47,880.00	$ 1,039,680.00			
										$ 15,589,120.00	$ 2,338,368.00	$ 17,927,488.00
N-4	Repaving	1	$ 250,000.00	$ 250,000.00	$ 25,000.00	$ 50,000.00	$ 37,500.00	$ 17,500.00	$ 380,000.00			
	Striping	1	$ 10,000.00	$ 10,000.00	$ 1,000.00	$ 2,000.00	$ 1,500.00	$ 700.00	$ 15,200.00			
										$ 380,000.00	$ 57,000.00	$ 437,000.00
N-5	New Roadway Alignment (1 lane in each direction)	2.763341	$ 2,500,000.00	$ 6,908,352.50	$ 690,835.25	$ 1,381,670.50	$ 1,036,252.88	$ 483,584.68	$ 10,500,695.80			
										$ 10,500,695.80	$ 1,575,104.37	$ 12,075,800.17
N-6	Urban Freight Upgrades	3.74	$ 625,000.00	$ 2,337,500.00	$ 233,750.00	$ 467,500.00	$ 350,625.00	$ 163,625.00	$ 3,553,000.00			
										$ 3,553,000.00	$ 532,950.00	$ 4,085,950.00
N-7	Roadway Widening (1 lane in each direction)	2.099873	$ 5,000,000.00	$ 10,499,365.00	$ 1,049,936.50	$ 2,099,873.00	$ 1,574,904.75	$ 734,955.55	$ 15,959,034.80			
										$ 15,959,034.80	$ 2,393,855.22	$ 18,352,890.02
N-8	Roadway Widening (1 lane in each direction)	2.08	$ 3,000,000.00	$ 6,240,000.00	$ 624,000.00	$ 1,248,000.00	$ 936,000.00	$ 436,800.00	$ 9,484,800.00			
	Rural Freight Upgrades	7.038633	$ 3,000,000.00	$ 21,115,899.00	$ 2,111,589.90	$ 4,223,179.80	$ 3,167,384.85	$ 1,478,112.93	$ 32,096,166.48			
										$ 41,580,966.48	$ 6,237,144.97	$ 47,818,111.45
N-9	Rural Freight Upgrades	3.470712	$ 315,000.00	$ 1,093,274.28	$ 109,327.43	$ 218,654.86	$ 163,991.14	$ 76,529.20	$ 1,661,776.91			
										$ 1,661,776.91	$ 249,266.54	$ 1,911,043.44
N-10	Urban Freight Upgrades	2.638609	$ 625,000.00	$ 1,649,130.63	$ 164,913.06	$ 329,826.13	$ 247,369.59	$ 115,439.14	$ 2,506,678.55			
										$ 2,506,678.55	$ 376,001.78	$ 2,882,680.33
N-11	New Roadway Alignment (1 lane in each direction)	9.2948	$ 2,500,000.00	$ 23,237,000.00	$ 2,323,700.00	$ 4,647,400.00	$ 3,485,550.00	$ 1,626,590.00	$ 35,320,240.00			
										$ 35,320,240.00	$ 5,298,036.00	$ 40,618,276.00
N-12	New Roadway Alignment (1 lane in each direction)	1.22	$ 2,500,000.00	$ 3,050,000.00	$ 305,000.00	$ 610,000.00	$ 457,500.00	$ 213,500.00	$ 4,636,000.00			
										$ 4,636,000.00	$ 695,400.00	$ 5,331,400.00
N-13	Urban Freight Upgrades	1.89	$ 625,000.00	$ 1,181,250.00	$ 118,125.00	$ 236,250.00	$ 177,187.50	$ 82,687.50	$ 1,795,500.00			
										$ 1,795,500.00	$ 269,325.00	$ 2,064,825.00
N-15	New Roadway Alignment (1 lane in each direction)	1.437174	$ 2,500,000.00	$ 3,592,935.00	$ 359,293.50	$ 718,587.00	$ 538,940.25	$ 251,505.45	$ 5,461,261.20			
										$ 5,461,261.20	$ 819,189.18	$ 6,280,450.38
N-16	New Roadway Alignment (1 lane in each direction)	0.75	$ 2,500,000.00	$ 1,875,000.00	$ 187,500.00	$ 375,000.00	$ 281,250.00	$ 131,250.00	$ 2,850,000.00			
										$ 2,850,000.00	$ 427,500.00	$ 3,277,500.00
N-18	Roadway Widening (1 lane in each direction)	7.176582	$ 3,000,000.00	$ 21,529,746.00	$ 2,152,974.60	$ 4,305,949.20	$ 3,229,461.90	$ 1,507,082.22	$ 32,725,213.92			
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00	$ 4,000.00	$ 3,000.00	$ 1,400.00	$ 30,400.00			
										$ 32,755,613.92	$ 4,913,342.09	$ 37,668,956.01
N-19	New Roadway Alignment (1 lane in each direction)	2.909866	$ 2,500,000.00	$ 7,274,645.00	$ 727,464.50	$ 1,454,929.00	$ 1,091,196.75	$ 509,225.15	$ 11,057,460.40			
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00	$ 4,000.00	$ 3,000.00	$ 1,400.00	$ 30,400.00			
										$ 11,087,860.40	$ 1,663,179.06	$ 12,751,039.46
N-20	Roadway Widening (1 lane in each direction)	6.389725	$ 3,000,000.00	$ 19,169,175.00	$ 1,916,917.50	$ 3,833,835.00	$ 2,875,376.25	$ 1,341,842.25	$ 29,137,146.00			
										$ 29,137,146.00	$ 4,370,571.90	$ 33,507,717.90
N-21	Roadway Widening (1 lane in each direction)	2.708886	$ 5,000,000.00	$ 13,544,430.00	$ 1,354,443.00	$ 2,708,886.00	$ 2,031,664.50	$ 948,110.10	$ 20,587,533.60			
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00	$ 4,000.00	$ 3,000.00	$ 1,400.00	$ 30,400.00			
										$ 20,617,933.60	$ 3,092,690.04	$ 23,710,623.64
N-22	New Roadway Alignment (1 lane in each direction) and New Bridge	1	-	$ 24,700,000.00	$ 2,450,000.00	$ 300,000.00	-		$ 27,450,000.00			
										$ 27,450,000.00	$ 4,117,500.00	$ 31,567,500.00
N-23	New Roadway Alignment (1 lane in each direction)	0.751666	$ 2,500,000.00	$ 1,879,165.00	$ 187,916.50	$ 375,833.00	$ 281,874.75	$ 131,541.55	$ 2,856,330.80			
										$ 2,856,330.80	$ 428,449.62	$ 3,284,780.42
N-25	New Roadway Alignment (1 lane in each direction)	2.940916	$ 2,500,000.00	$ 7,352,290.00	$ 735,229.00	$ 1,470,458.00	$ 1,102,843.50	$ 514,660.30	$ 11,175,480.80			
										$ 11,175,480.80	$ 1,676,322.12	$ 12,851,802.92
N-26	Roadway Widening (1 lane in each direction)	7.71533	$ 5,000,000.00	$ 38,576,650.00	$ 3,857,665.00	$ 7,715,330.00	$ 5,786,497.50	$ 2,700,365.50	$ 58,636,508.00			
	Signal Modification	1	$ 20,000.00	$ 20,000.00	$ 2,000.00	$ 4,000.00	$ 3,000.00	$ 1,400.00	$ 30,400.00			
										$ 58,666,908.00	$ 8,800,036.20	$ 67,466,944.20
N-28	Scoping Study	1	$ 100,000.00	$ 100,000.00	-	-	-	$ 7,000.00	$ 107,000.00			
										$ 107,000.00	$ 16,050.00	$ 123,050.00
N-30	Repaving	3.640419	$ 250,000.00	$ 910,104.75	$ 91,010.48	$ 182,020.95	$ 136,515.71	$ 63,707.33	$ 1,383,359.22			
	Rural Freight Upgrades	3.6404	$ 315,000.00	$ 1,146,726.00	$ 114,672.60	$ 229,345.20	$ 172,008.90	$ 80,270.82	$ 1,743,023.52			
										$ 3,126,382.74	$ 468,957.41	$ 3,595,340.15
N-32	Rural Freight Upgrades	22.25454	$ 315,000.00	$ 7,010,181.05	$ 701,018.10	$ 1,402,036.21	$ 1,051,527.16	$ 490,712.67	$ 10,655,475.19			
										$ 10,655,475.19	$ 1,598,321.28	$ 12,253,796.47
N-33	Rural Freight Upgrades	8.432646	$ 315,000.00	$ 2,656,283.49	$ 265,628.35	$ 531,256.70	$ 398,442.52	$ 185,939.84	$ 4,037,550.90			
										$ 4,037,550.90	$ 605,632.64	$ 4,643,183.54
N-34	Rural Freight Upgrades	1.14394	$ 315,000.00	$ 360,341.10	$ 36,034.11	$ 72,068.22	$ 54,051.17	$ 25,223.88	$ 547,718.47			
										$ 547,718.47	$ 82,157.77	$ 629,876.24

A
E

Table C-9. Active Transportation Project Costing Table (1 of 2)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
A-1	Rectangular Rapid Flashing Beacon (RRFB)	1	$ 30,000.00	$ 30,000.00	$ 3,000.00		$ 6,000.00		$ 4,500.00		$ 2,100.00		$ 45,600.00				
	Misc Striping Improvements	1	$ 10,000.00	$ 10,000.00	$ 1,000.00		$ 2,000.00		$ 1,500.00		$ 700.00		$ 15,200.00				
														$ 60,800.00	$ 9,120.00		$ 69,920.00
A-2	Multi-Use Trail	28.08	$ 430,000.00	$ 12,074,400.00	$ 1,207,440.00		$ 2,414,880.00		$ 1,811,160.00		$ 845,208.00		$ 18,353,088.00				
														$ 18,353,088.00	$ 2,752,963.20		$ 21,106,051.20
A-3	Scoping Study	1	$ 100,000.00	$ 100,000.00	$ -		$ -		$ -		$ 7,000.00		$ 107,000.00				
														$ 107,000.00	$ 16,050.00		$ 123,050.00
A-4	Scoping Study	1	$ 100,000.00	$ 100,000.00	$ -		$ -		$ -		$ 7,000.00		$ 107,000.00				
														$ 107,000.00	$ 16,050.00		$ 123,050.00
A-5	Multi-Use Trail	5.44	$ 430,000.00	$ 2,339,200.00	$ 233,920.00		$ 467,840.00		$ 350,880.00		$ 163,744.00		$ 3,555,584.00				
	Curb and gutter with Piped Drainage System	5.44	$ 1,000,000.00	$ 5,440,000.00	$ 544,000.00		$ 1,088,000.00		$ 816,000.00		$ 380,800.00		$ 8,268,800.00				
														$ 11,824,384.00	$ 1,773,657.60		$ 13,598,041.60
A-6	Bike Lanes with curb modification	4.82	$ 850,000.00	$ 4,097,000.00	$ 409,700.00		$ 819,400.00		$ 614,550.00		$ 286,790.00		$ 6,227,440.00				
	Sidewalks	4.82	$ 430,000.00	$ 2,072,600.00	$ 207,260.00		$ 414,520.00		$ 310,890.00		$ 145,082.00		$ 3,150,352.00				
														$ 9,377,792.00	$ 1,406,668.80		$ 10,784,460.80
A-7	Bike Lanes	2.51	$ 575,000.00	$ 1,443,250.00	$ 144,325.00		$ 288,650.00		$ 216,487.50		$ 101,027.50		$ 2,193,740.00				
														$ 2,193,740.00	$ 329,061.00		$ 2,522,801.00
A-8	Bike Lanes	8.04	$ 575,000.00	$ 4,623,000.00	$ 462,300.00		$ 924,600.00		$ 693,450.00		$ 323,610.00		$ 7,026,960.00				
	Sidewalks	8.04	$ 430,000.00	$ 3,457,200.00	$ 345,720.00		$ 691,440.00		$ 518,580.00		$ 242,004.00		$ 5,254,944.00				
	Curb and gutter with Piped Drainage System	9.04	$ 1,000,000.00	$ 9,040,000.00	$ 904,000.00		$ 1,808,000.00		$ 1,356,000.00		$ 632,800.00		$ 13,740,800.00				
														$ 26,022,704.00	$ 3,903,405.60		$ 29,926,109.60
A-9	Wide Shoulder	4.84	$ 575,000.00	$ 2,783,000.00	$ 278,300.00		$ 556,600.00		$ 417,450.00		$ 194,810.00		$ 4,230,160.00				
	Sidewalks	4.84	$ 430,000.00	$ 2,081,200.00	$ 208,120.00		$ 416,240.00		$ 312,180.00		$ 145,684.00		$ 3,163,424.00				
	Curb and gutter with Piped Drainage System	5.84	$ 1,000,000.00	$ 5,840,000.00	$ 584,000.00		$ 1,168,000.00		$ 876,000.00		$ 408,800.00		$ 8,876,800.00				
														$ 16,270,384.00	$ 2,440,557.60		$ 18,710,941.60
A-10	Bike Lanes	7.2	$ 575,000.00	$ 4,140,000.00	$ 414,000.00		$ 828,000.00		$ 621,000.00		$ 289,800.00		$ 6,292,800.00				
	Sidewalks	7.2	$ 430,000.00	$ 3,096,000.00	$ 309,600.00		$ 619,200.00		$ 464,400.00		$ 216,720.00		$ 4,705,920.00				
	Curb and gutter with Piped Drainage System	8.2	$ 1,000,000.00	$ 8,200,000.00	$ 820,000.00		$ 1,640,000.00		$ 1,230,000.00		$ 574,000.00		$ 12,464,000.00				
														$ 23,462,720.00	$ 3,519,408.00		$ 26,982,128.00
A-11	Multi-Use Trail	3.51	$ 430,000.00	$ 1,509,300.00	$ 150,930.00		$ 301,860.00		$ 226,395.00		$ 105,651.00		$ 2,294,136.00				
														$ 2,294,136.00	$ 344,120.40		$ 2,638,256.40
A-12	Wide Shoulder	3.47	$ 575,000.00	$ 1,995,250.00	$ 199,525.00		$ 399,050.00		$ 299,287.50		$ 139,667.50		$ 3,032,780.00				
	Sidewalks	3.47	$ 430,000.00	$ 1,492,100.00	$ 149,210.00		$ 298,420.00		$ 223,815.00		$ 104,447.00		$ 2,267,992.00				
	Curb and gutter with Piped Drainage System	4.47	$ 1,000,000.00	$ 4,470,000.00	$ 447,000.00		$ 894,000.00		$ 670,500.00		$ 312,900.00		$ 6,794,400.00				
														$ 12,095,172.00	$ 1,814,275.80		$ 13,909,447.80
A-13	Bike Lanes	3.69	$ 575,000.00	$ 2,121,750.00	$ 212,175.00		$ 424,350.00		$ 318,262.50		$ 148,522.50		$ 3,225,060.00				
	Sidewalks	3.69	$ 430,000.00	$ 1,586,700.00	$ 158,670.00		$ 317,340.00		$ 238,005.00		$ 111,069.00		$ 2,411,784.00				
	Curb and gutter with Piped Drainage System	4.69	$ 1,000,000.00	$ 4,690,000.00	$ 469,000.00		$ 938,000.00		$ 703,500.00		$ 328,300.00		$ 7,128,800.00				
														$ 12,765,644.00	$ 1,914,846.60		$ 14,680,490.60

Table C-10. Active Transportation Project Costing Table (2 of 2)

ID	Countermeasure	Quanity	Unit Cost	Total Unit Cost	PE	10%	ROW	20%	UTL	15%	CMT	7%	Construction Unit Cost	Total Construction Cost	Cont.	15%	Total Project Cost
A-14	Bike Lanes	2.27	$ 575,000.00	$ 1,305,250.00	$ 130,525.00		$ 261,050.00		$ 195,787.50		$ 91,367.50		$ 1,983,980.00				
	Sidewalks	2.27	$ 430,000.00	$ 976,100.00	$ 97,610.00		$ 195,220.00		$ 146,415.00		$ 68,327.00		$ 1,483,672.00				
	Curb and gutter with Piped Drainage System	3.27	$ 1,000,000.00	$ 3,270,000.00	$ 327,000.00		$ 654,000.00		$ 490,500.00		$ 228,900.00		$ 4,970,400.00				
														$ 8,438,052.00	$ 1,265,707.80		$ 9,703,759.80
A-15	Bike Lanes	8.35	$ 575,000.00	$ 4,801,250.00	$ 480,125.00		$ 960,250.00		$ 720,187.50		$ 336,087.50		$ 7,297,900.00				
	Sidewalks	8.35	$ 430,000.00	$ 3,590,500.00	$ 359,050.00		$ 718,100.00		$ 538,575.00		$ 251,335.00		$ 5,457,560.00				
	Curb and gutter with Piped Drainage System	9.35	$ 1,000,000.00	$ 9,350,000.00	$ 935,000.00		$ 1,870,000.00		$ 1,402,500.00		$ 654,500.00		$ 14,212,000.00				
														$ 26,967,460.00	$ 4,045,119.00		$ 31,012,579.00
A-16	Multi-Use Trail	2.09	$ 430,000.00	$ 898,700.00	$ 89,870.00		$ 179,740.00		$ 134,805.00		$ 62,909.00		$ 1,366,024.00				
	Curb and gutter with Piped Drainage System	3.09	$ 1,000,000.00	$ 3,090,000.00	$ 309,000.00		$ 618,000.00		$ 463,500.00		$ 216,300.00		$ 4,696,800.00				
														$ 6,062,824.00	$ 909,423.60		$ 6,972,247.60
A-17	Multi-Use Trail	6.24	$ 430,000.00	$ 2,683,200.00	$ 268,320.00		$ 536,640.00		$ 402,480.00		$ 187,824.00		$ 4,078,464.00				
	Curb and gutter with Piped Drainage System	7.24	$ 1,000,000.00	$ 7,240,000.00	$ 724,000.00		$ 1,448,000.00		$ 1,086,000.00		$ 506,800.00		$ 11,004,800.00				
														$ 15,083,264.00	$ 2,262,489.60		$ 17,345,753.60
A-18	Wide shoulder	5.52	$ 575,000.00	$ 3,174,000.00	$ 317,400.00		$ 634,800.00		$ 476,100.00		$ 222,180.00		$ 4,824,480.00				
														$ 4,824,480.00	$ 723,672.00		$ 5,548,152.00
A-19	Bike Lanes	0.47	$ 575,000.00	$ 270,250.00	$ 27,025.00		$ 54,050.00		$ 40,537.50		$ 18,917.50		$ 410,780.00				
	Sidewalks	0.47	$ 430,000.00	$ 202,100.00	$ 20,210.00		$ 40,420.00		$ 30,315.00		$ 14,147.00		$ 307,192.00				
	Curb and gutter with Piped Drainage System	1.47	$ 1,000,000.00	$ 1,470,000.00	$ 147,000.00		$ 294,000.00		$ 220,500.00		$ 102,900.00		$ 2,234,400.00				
														$ 2,952,372.00	$ 442,855.80		$ 3,395,227.80
A-20	Wide shoulder	9.42	$ 575,000.00	$ 5,416,500.00	$ 541,650.00		$ 1,083,300.00		$ 812,475.00		$ 379,155.00		$ 8,233,080.00				
	Sidewalks	9.42	$ 430,000.00	$ 4,050,600.00	$ 405,060.00		$ 810,120.00		$ 607,590.00		$ 283,542.00		$ 6,156,912.00				
	Curb and gutter with Piped Drainage System	10.42	$ 1,000,000.00	$ 10,420,000.00	$ 1,042,000.00		$ 2,084,000.00		$ 1,563,000.00		$ 729,400.00		$ 15,838,400.00				
														$ 30,228,392.00	$ 4,534,258.80		$ 34,762,650.80
A-21	Bike Lanes	6.24	$ 575,000.00	$ 3,588,000.00	$ 358,800.00		$ 717,600.00		$ 538,200.00		$ 251,160.00		$ 5,453,760.00				
	Sidewalks	6.24	$ 430,000.00	$ 2,683,200.00	$ 268,320.00		$ 536,640.00		$ 402,480.00		$ 187,824.00		$ 4,078,464.00				
	Curb and gutter with Piped Drainage System	7.24	$ 1,000,000.00	$ 7,240,000.00	$ 724,000.00		$ 1,448,000.00		$ 1,086,000.00		$ 506,800.00		$ 11,004,800.00				
														$ 20,537,024.00	$ 3,080,553.60		$ 23,617,577.60
A-22	Wide shoulder	3.47	$ 575,000.00	$ 1,995,250.00	$ 199,525.00		$ 399,050.00		$ 299,287.50		$ 139,667.50		$ 3,032,780.00				
														$ 3,032,780.00	$ 454,917.00		$ 3,487,697.00
A-23	Multi-Use Trail	11.29	$ 430,000.00	$ 4,854,700.00	$ 485,470.00		$ 970,940.00		$ 728,205.00		$ 339,829.00		$ 7,379,144.00				
	Curb and gutter with Piped Drainage System	12.29	$ 1,000,000.00	$ 12,290,000.00	$ 1,229,000.00		$ 2,458,000.00		$ 1,843,500.00		$ 860,300.00		$ 18,680,800.00				
														$ 26,059,944.00	$ 3,908,991.60		$ 29,968,935.60
A-24	Bike Lanes	2.12	$ 575,000.00	$ 1,219,000.00	$ 121,900.00		$ 243,800.00		$ 182,850.00		$ 85,330.00		$ 1,852,880.00				
	Sidewalks	2.12	$ 430,000.00	$ 911,600.00	$ 91,160.00		$ 182,320.00		$ 136,740.00		$ 63,812.00		$ 1,385,632.00				
	Curb and gutter with Piped Drainage System	3.12	$ 1,000,000.00	$ 3,120,000.00	$ 312,000.00		$ 624,000.00		$ 468,000.00		$ 218,400.00		$ 4,742,400.00				
														$ 7,980,912.00	$ 1,197,136.80		$ 9,178,048.80
A-25	Bike Lanes	6.15	$ 575,000.00	$ 3,536,250.00	$ 353,625.00		$ 707,250.00		$ 530,437.50		$ 247,537.50		$ 5,375,100.00				
	Sidewalks	6.15	$ 430,000.00	$ 2,644,500.00	$ 264,450.00		$ 528,900.00		$ 396,675.00		$ 185,115.00		$ 4,019,640.00				
	Curb and gutter with Piped Drainage System	7.15	$ 1,000,000.00	$ 7,150,000.00	$ 715,000.00		$ 1,430,000.00		$ 1,072,500.00		$ 500,500.00		$ 10,868,000.00				
														$ 20,262,740.00	$ 3,039,411.00		$ 23,302,151.00

Appendix D: Pavement Management Plan

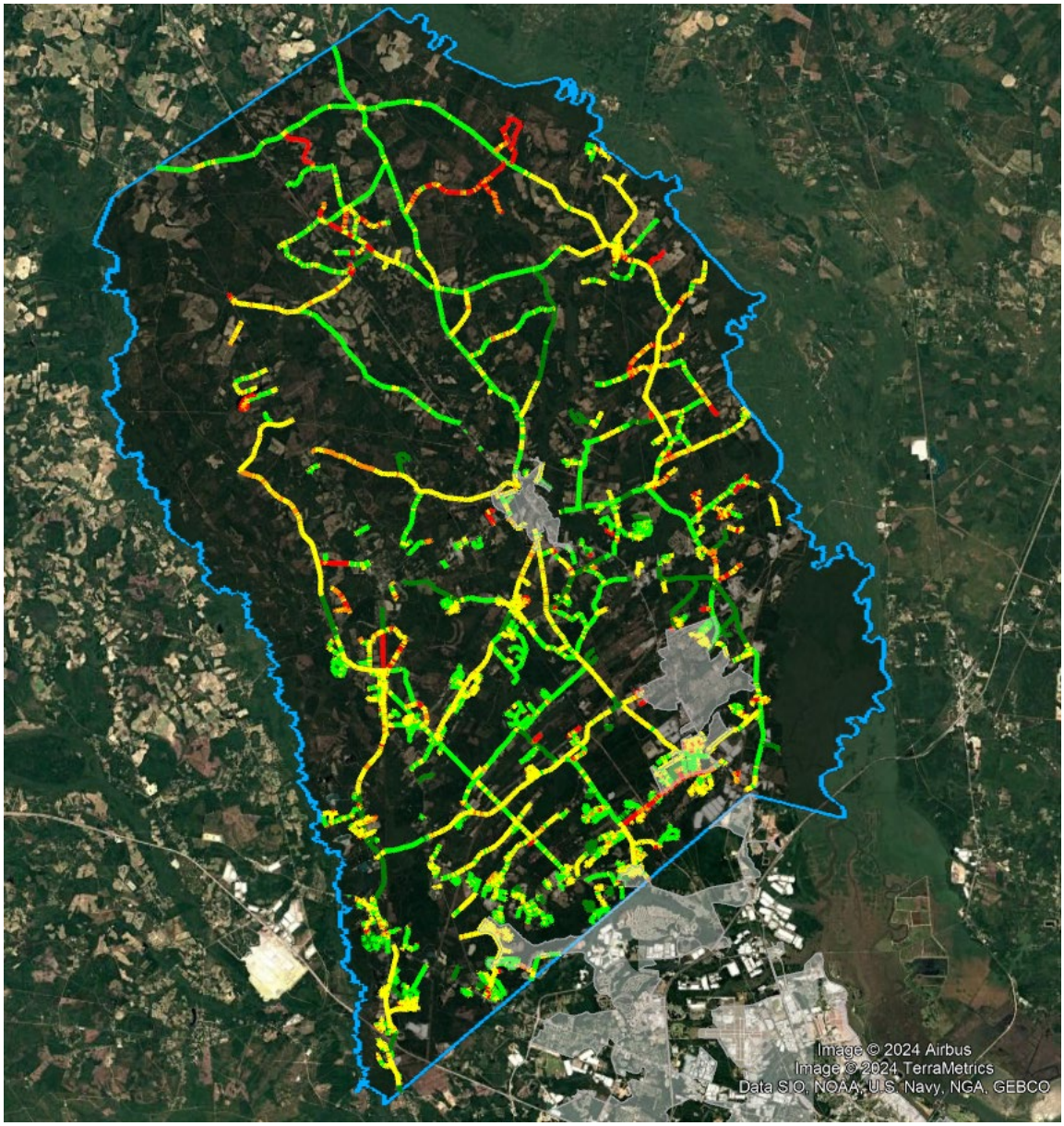
Introduction

This plan included an analysis of the County's pavement management system. This included maintenance needs and projects costs. Needs were compared to County funding to understand an overall timeline for projects that bring the County network up to standard and maintain pace with development in the area.

Pavement Assessment

The roadway inventory and pavement condition, including Pavement Condition Index (PCI), for County-maintained roadways was obtained from the 2022 Effingham County Pavement Management Workbook. This information was provided by the County and previously prepared by FirstStep.

Figure D-1. Pavement Condition Index *(Source: FristStep)*



Using the PCI score, a pavement condition class and recommended project type were assigned for each roadway:

Table D-1. Pavement Condition and Related Project Types

PCI Rating	Condition	Roadway Needs	Recommended Project Type
PCI 95-100	Excellent Condition	No Project Needed	Assumed No Project
PCI 80-95	Good Condition	Preventative Maintenance	Assumed Microsurfacing Project
PCI 65-80	Fair Condition	Corrective Maintenance	Assumed Cape Seal Scrub-Microsurfacing Project
PCI 50-65	Critical Condition	Critical Corrective Maintenance	Assumed 2" Mill & Overlay Project
PCI 0-50	Lost	Reconstruction	Assumed Full Depth Reclamation Project

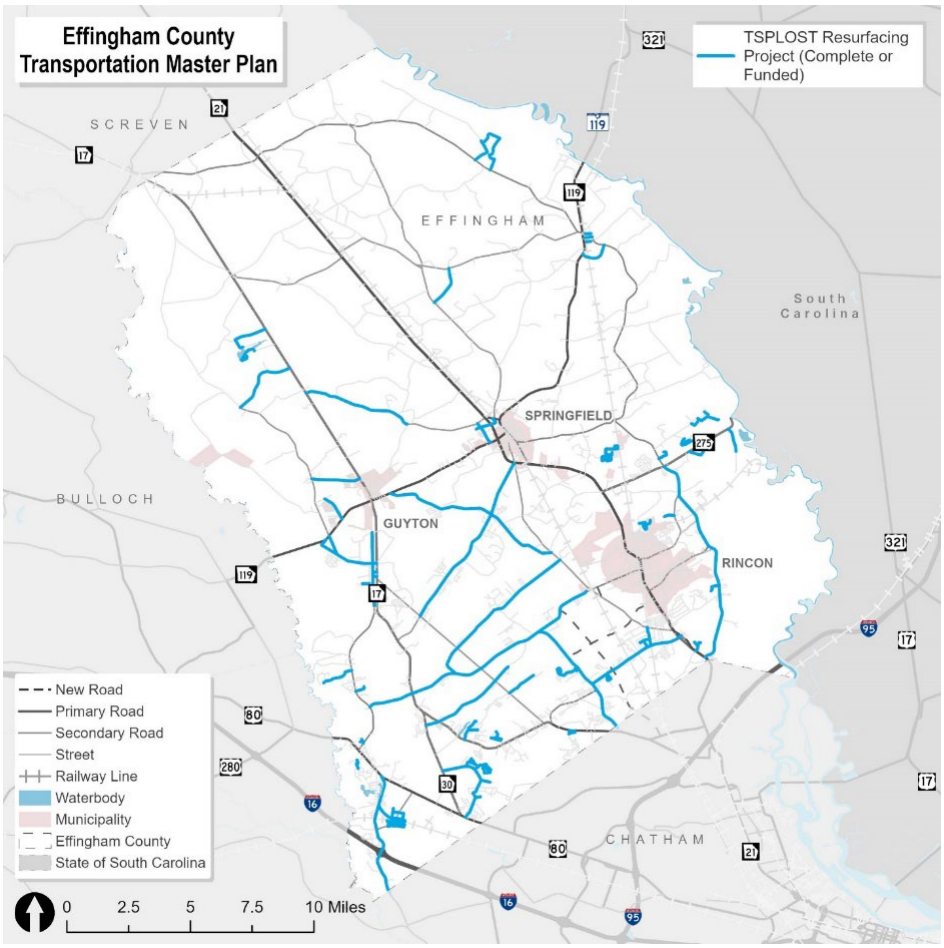
PROJECT PHASING

After the pavement assessment, recommended maintenance projects were identified by analyzing the roadway information and existing pavement conditions. This allowed for the project team to identify the needs of each roadway and a recommended action to address needs over time.

Pavement projects were then prioritized into a phasing plan based on identified needs and the general timeline for pavement maintenance projects. Projects were phased based on their determined priority within the overall roadway network.

Roadways with identified upcoming or recent repaving projects from the TSPLOST were removed from all phases of the program, as it was assumed the project will bring the roadways to excellent conditions. Figure D-2 shows these projects.

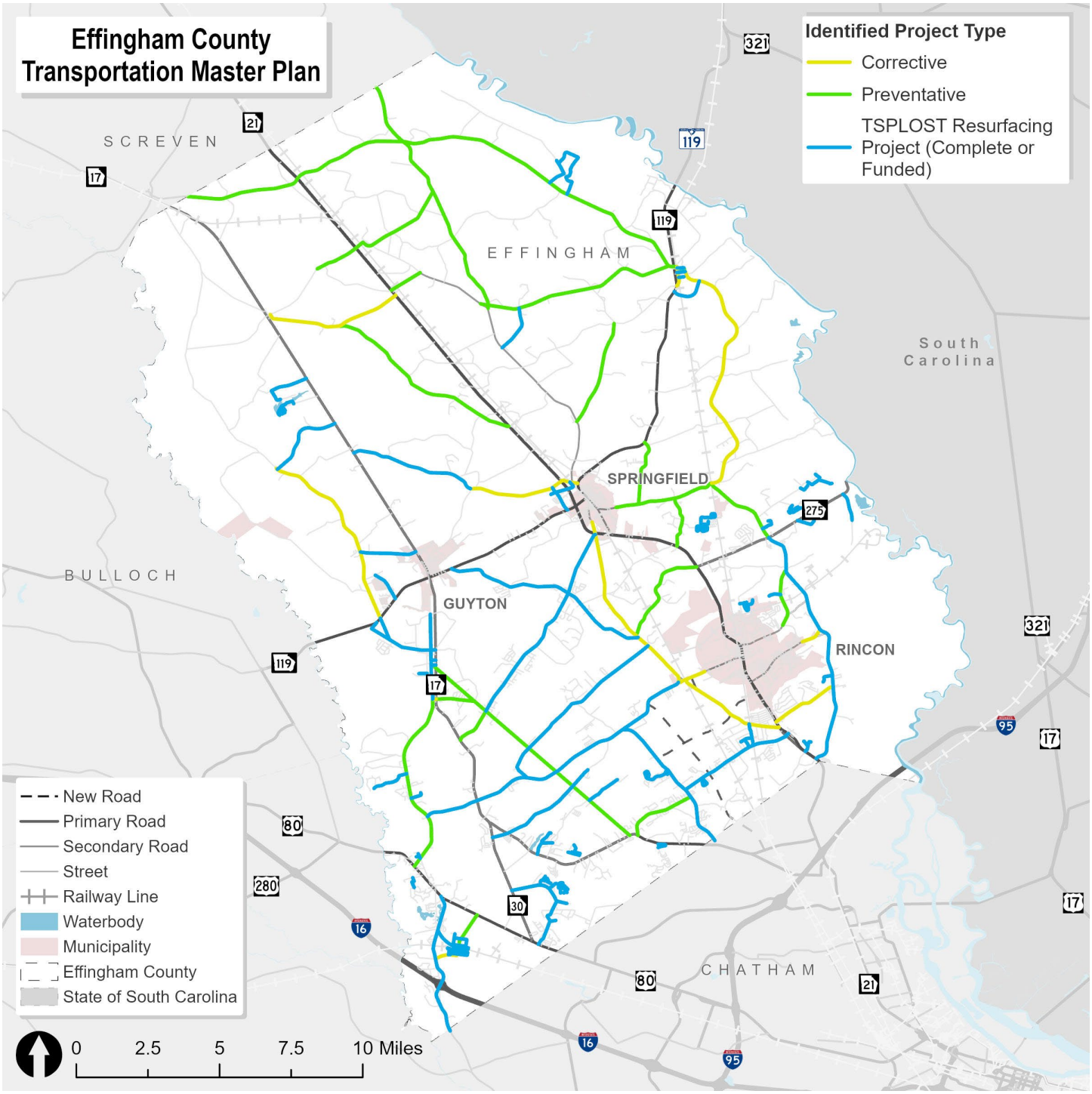
Figure D-2. TSPLOST Projects



PHASE 1 PROJECTS

GDOT Classified Roadways and Effingham County Truck Route Roadways were selected as the priority network. Pavement projects along these facilities were identified as the first phase of projects. There are no lost or critical roadways along the priority network, so all priority projects are corrective or preventative maintenance projects.

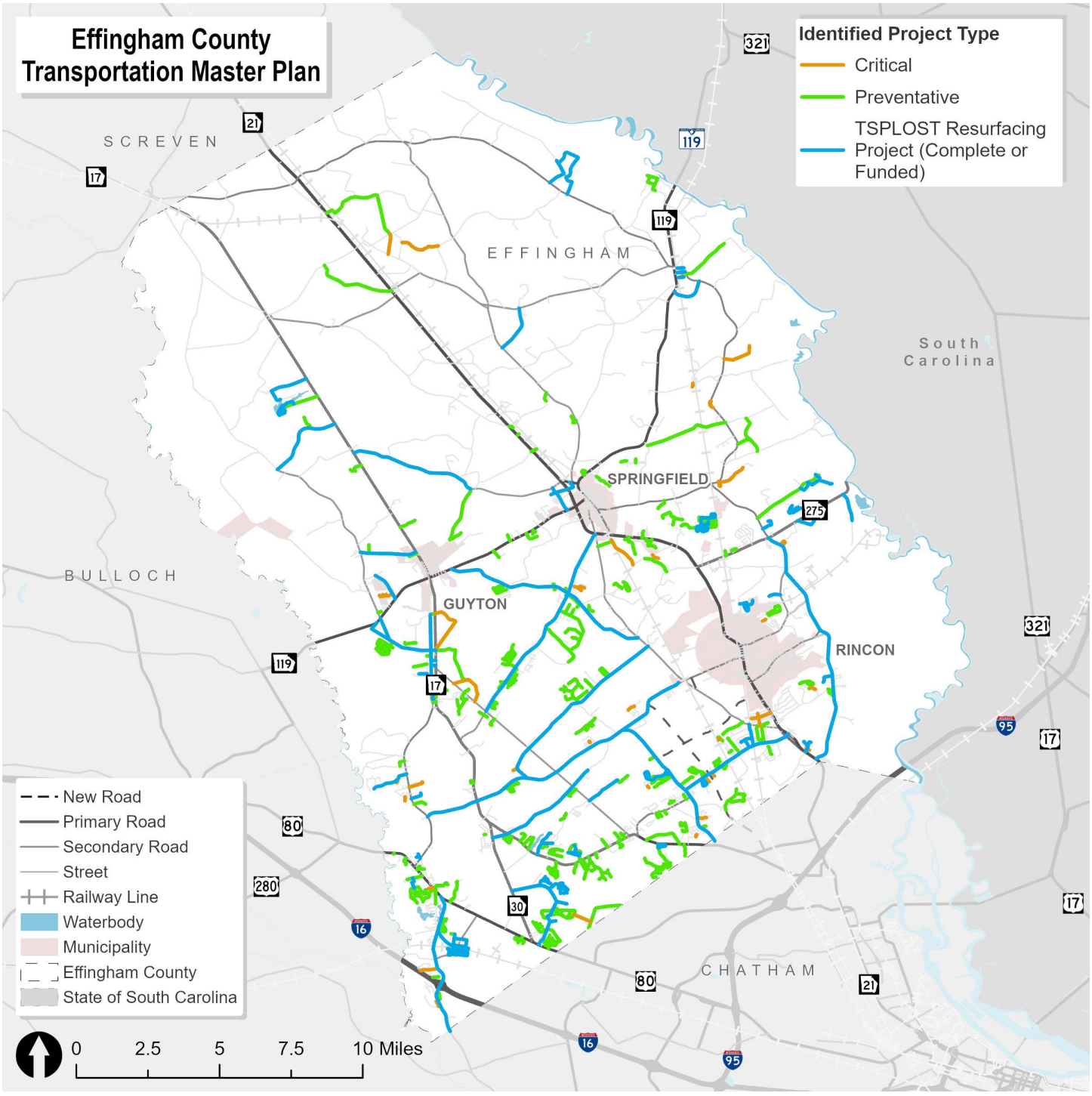
Figure D-3. Phase 1 Projects



PHASE 2 PROJECTS

Roadways off of the priority network in critical or good condition were selected as the secondary phase. This was done because critical pavement projects have the highest time-delay cost (as if they are not completed in a timely manner the roadway will require a costly reconstruction project), while preventative pavement projects provide the highest benefit/cost ratio.

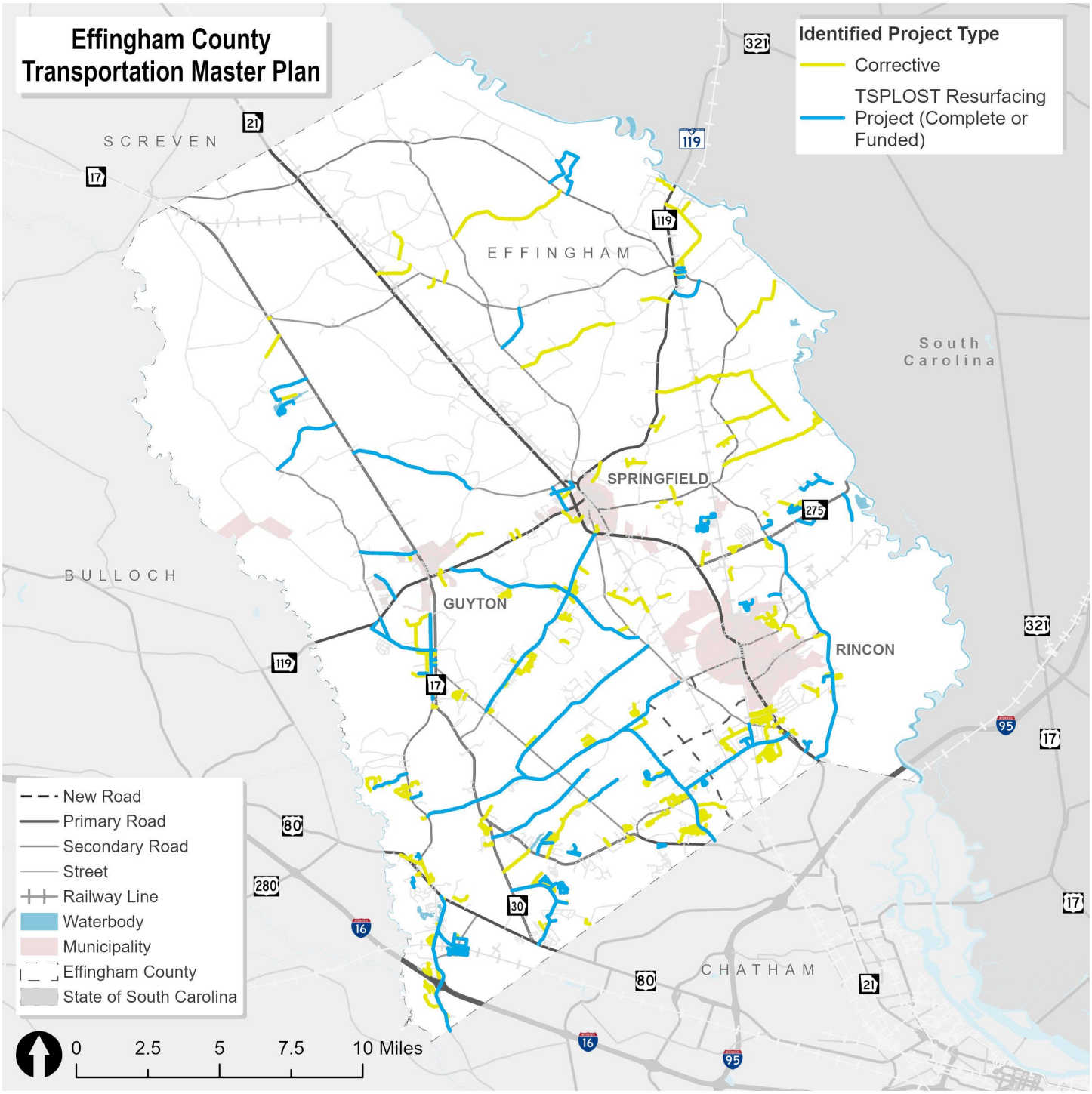
Figure D-4. Phase 2 Projects



PHASE 3 PROJECTS

Corrective projects along roadways off the priority network were classified as third phase projects.

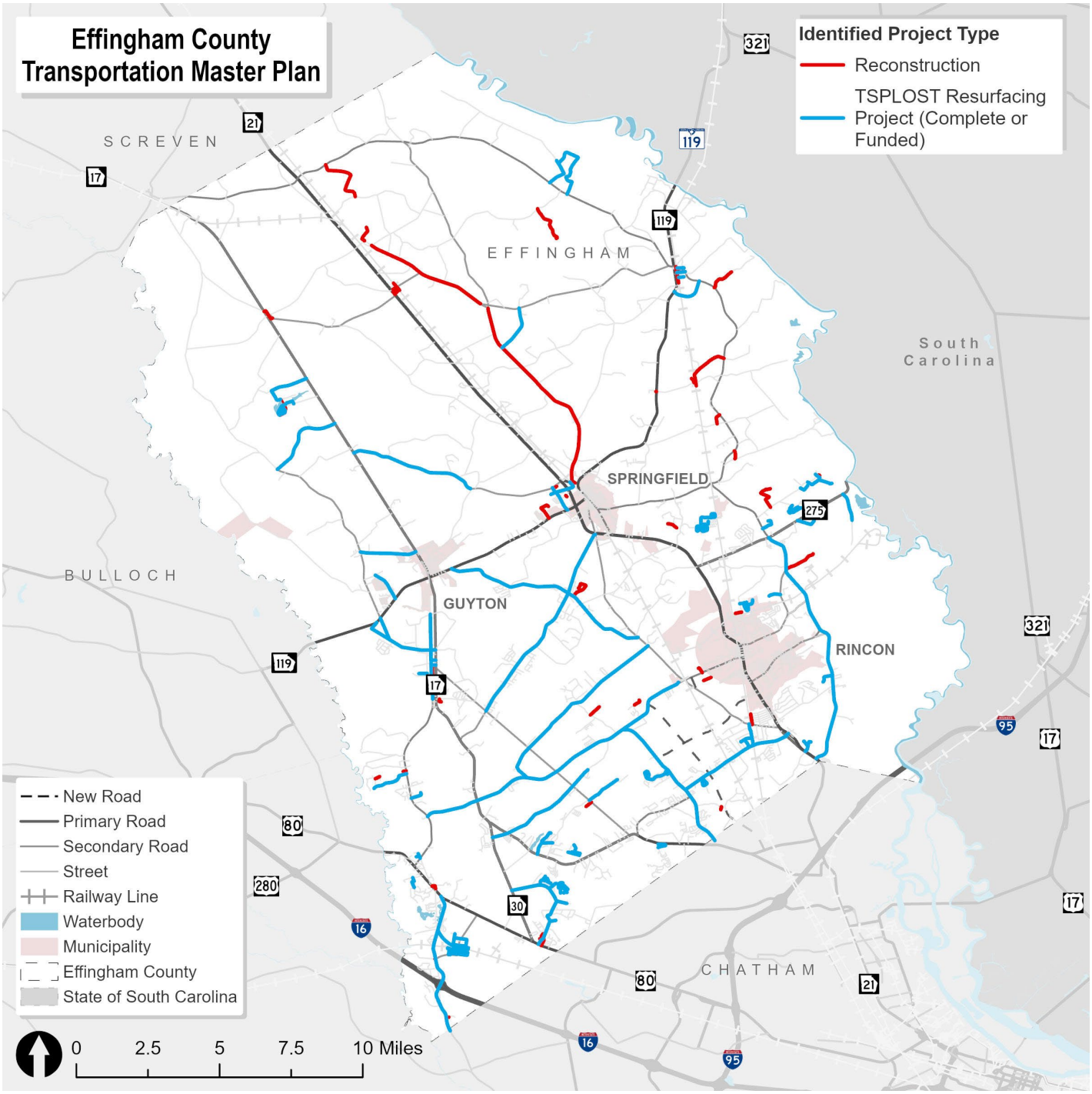
Figure D-5. Phase 3 Projects



PHASE 4 PROJECTS

Reconstruction projects off the priority network were classified as the fourth phase. This was determined as reconstruction pavement projects have the lowest time-delay cost relative to all other pavement project types.

Figure D-6. Phase 4 Projects



MAINTENANCE PROJECT COSTING

Project cost estimates were estimated for each roadway using information from the Pavement Management Workbook. Costs were then adjusted by a factor that was developed by comparing calculated cost estimates with construction bid prices for the Hodgeville Rd and Old River Rd TSPLOST projects.

Table D-2. Phase 1 Project Cost Estimates

Project Type	Total Length (miles)	Total Cost
Corrective	41.7	$8,469,531
Preventative	88.9	$7,379,979
Total	**136.86**	**$15,849,510**

Table D-3. Phase 2 Project Cost Estimates

Project Type	Total Length (miles)	Total Cost
Critical	21.8	$9,238,307
Preventative	114.4	$9,620,062
Total	**136.2**	**$18,858,369**

Table D-4. Phase 3 Project Cost Estimates

Project Type	Total Length (miles)	Total Cost
Corrective	115.6	$23,486,080
Total	**115.6**	**$23,486,080**

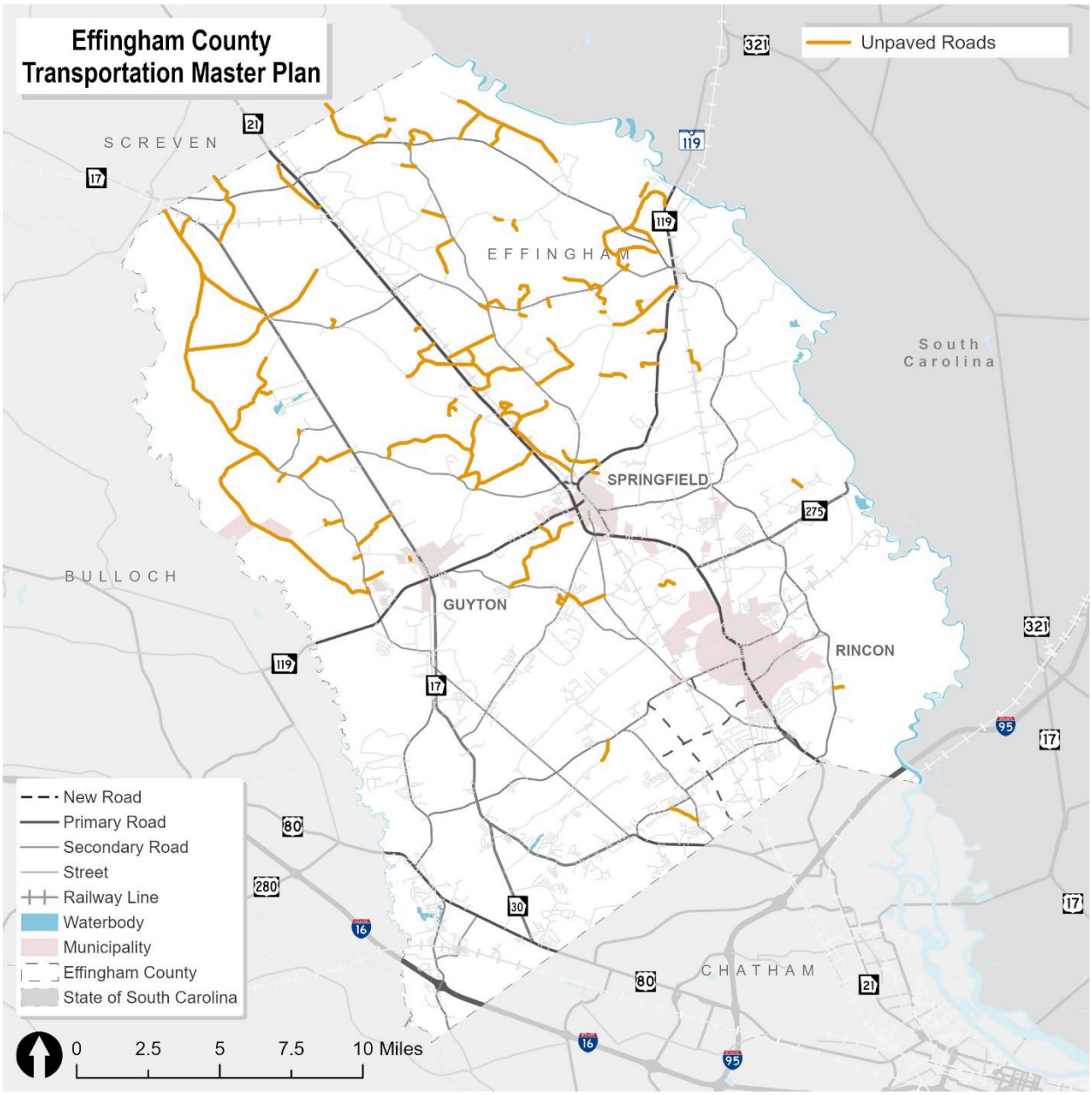
Table D-5. Phase 4 Project Cost Estimates

Project Type	Total Length (miles)	Total Cost
Reconstruction	24.2	$31,626,435
Total	**24.2**	**$31,626,435**

UNPAVED ROAD PAVING RECOMMENDATIONS

There are 109.6 miles of unpaved roads in Effingham County. There are 10.3 miles of unpaved roads South of SR 119, in areas that are relatively high traffic. North of SR 119, there are 99.3 miles of unpaved roads in the more rural areas of the County.

Figure D-7. Unpaved Roads within Effingham County



RECOMMENDATIONS

Unpaved roads south of SR 119 should be the priority for paving, as there is likely more traffic utilizing these roads than other unpaved road throughout the County. These 10.3 miles should receive priority for paving when criteria are met. The secondary priority for unpaved roads includes those north of SR 119. A program should be implemented to prioritize paving of the remaining 99.3 miles of unpaved roads in a phased process. In the absence of traffic volumes, maintenance records can be used to determine those roads that have historically required more maintenance.

Guidance on roadway width and pavement type versus traffic volume was reviewed using information from FHWA and GDOT, including:

- *Gravel Roads Construction and Maintenance Guide, 2015, by FHWA*
- *Design Policy Manua, 2024, by Georgia Department of Transportation*

The following thresholds are recommended for treatment of unpaved roads by volume:

- Up to 250 ADT – Maintain as Dirt or Ash Roads with 18 ft width
- 250 ADT to 2000 ADT – Apply chip seal treatment with road width of 18 ft
- Above 2000 ADT – Pave in accordance with local road standards

Figure D-8. Recommended Paving Project Phasing